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EDUCATION
DEPARTMENT

DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1918, No. 35

CARDINAL PRINCIPLES OF SECONDARY EDUCATION

A REPORT OF THE COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION, APPOINTED BY THE NATIONAL EDUCATION ASSOCIATION

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REPORTS OF THE COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION.

The following reports of the commission have been issued as bulletins of the United States Bureau of Education and may be procured from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the prices stated. Remittance should be made in coin or money order. Other reports of the commission are in preparation.

1913, No. 41. The Reorganization of Secondary Education. Contains preliminary statements by the chairmen of committees. 10 cents.
1915, No. 23. The Teaching of Community Civics. 10 cents.
1916, No. 28. The Social Studies in Secondary Education. 10 cents.
1917, No. 2. Reorganization of English in Secondary Schools. 20 cents.
1917, No. 49. Music in Secondary Schools. 5 cents.
1917, No. 50. Physical Education in Secondary Schools. 5 cents.
1917, No. 51. Moral Values in Secondary Education. 5 cents.
1918, No. 19. Vocational Guidance in Secondary Schools. 5 cents.
1918, No. 35. Cardinal Principles of Secondary Education. 5 cents.

PREFACE.

The Commission on the Reorganization of Secondary Education presents herewith the cardinal principles which, in the judgment of its reviewing committee, should guide the reorganization and development of secondary education in the United States.

The commission was the direct outgrowth of the work of the committee on the articulation of high school and college, which submitted its report to the National Education Association in 1911. That committee set forth briefly its conception of the field and function of secondary education and urged the modification of college entrance requirements in order that the secondary school might adapt its work to the varying needs of its pupils without closing to them the possibility of continued education in higher institutions. It took the position that the satisfactory completion of any well-planned high-school curriculum should be accepted as a preparation for college. This recommendation accentuated the responsibility of the secondary school for planning its work so that young people may meet the needs of democracy.

Through 16 of its committees the commission is issuing reports dealing with the organization and administration of secondary schools, and with the aims, methods, and content of the various studies. To assist these committees through constructive criticism, a reviewing committee was organized in 1913. Besides conducting continuous correspondence, that committee has each year held one or two meetings of from one to six days' duration, at which reports of the various committees were discussed from many points of view, and as a result some of the reports have been revised and rewritten several times. In addition to its task of criticizing reports, it seemed desirable that the reviewing committee itself should outline in a single brief report those fundamental principles that would be most helpful in directing secondary education. In its desire to determine the principles that are most significant and to set them forth adequately, the reviewing committee has been three years in formulating and revising the report which is presented in this bulletin.

The reports already issued by seven committees and listed on the last page of this bulletin are, for the most part, in fundamental agreement with the principles herein set forth.

The translation of these cardinal principles into daily practice will of necessity call for continued study and experiment on the part of the administrative officers and teachers in secondary schoools.

CLARENCE D. KINGSLEY,
Chairman of the Commission.

THE REVIEWING COMMITTEE OF THE COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION.

(The Reviewing Committee consists of 26 members, of whom 16 are chairmen of committees and 10 are members at large.)

Chairman of the Commission and of the Reviewing Committee:

Clarence D. Kingsley, State high-school supervisor, Boston, Mass.

Members at large:

Hon. P. P. Claxton, United States Commissioner of Education, Washington, D. C.

Thomas H. Briggs, associate professor of education, Teachers College, Columbia University, New York City.

Alexander Inglis, assistant professor of education, in charge of secondary education, Harvard University, Cambridge, Mass.

Henry Neumann, Ethical Culture School, New York City.

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William B. Owen, principal Chicago Normal College, Chicago, Ill.

Edward O. Sisson, president University of Montana, Missoula, Mont.

Joseph S. Stewart, professor of secondary education, University of Georgia, Athens, Ga.

Milo H. Stuart, principal Technical High School, Indianapolis, Ind.

H. L. Terry, State high-school supervisor, Madison, Wis.

Chairmen of Committees:

Organization and Administration of Secondary Education—Charles Hughes Johnston, professor of secondary education, University of Illinois, Urbana, Ill.[1]

Agriculture—A. V. Storm, professor of agricultural education, University of Minnesota, St. Paul, Minn.

Art Education—Henry Turner Bailey, dean, Cleveland School of Art, Cleveland, Ohio.

Articulation of High School and College—Clarence D. Kingsley, State high-school inspector, Boston, Mass.

Business Education—Cheesman A. Herrick, president, Girard College, Philadelphia, Pa.

Classical Languages—Walter Eugene Foster, Stuyvesant High School, New York City.

English—James Fleming Hosic, Chicago Normal College, Chicago, Ill.

Household Arts—Mrs. Henrietta Calvin, United States Bureau of Education, Washington, D. C.

Industrial Arts—Wilson H. Henderson, extension division, University of Wisconsin, Milwaukee, Wis. (now Major, Sanitary Corps, War Department, U. S. A.)

Mathematics—William Heard Kilpatrick, associate professor of education, Teachers College, Columbia University, New York City.

Modern Languages—Edward Manley, Englewood High School, Chicago, Ill.

Music—Will Earhart, director of music, Pittsburgh, Pa.

Physical Education—James H. McCurdy, director of normal courses of physical education, International Y. M. C. A. College, Springfield, Mass. (now in France, in charge of Y. M. C. A. recreation work).

Sciences—Otis W. Caldwell, director, Lincoln School, and professor of education, Teachers College, Columbia University, New York City.

Social Studies—Thomas Jesse Jones, United States Bureau of Education, Washington, D. C.

Vocational Guidance—Frank M. Leavitt, associate superintendent of schools, Pittsburgh, Pa.

[1] Deceased, Sept. 4, 1917.

CARDINAL PRINCIPLES OF SECONDARY EDUCATION.

I. THE NEED FOR REORGANIZATION.

Secondary education should be determined by the needs of the society to be served, the character of the individuals to be educated, and the knowledge of educational theory and practice available. These factors are by no means static. Society is always in process of development; the character of the secondary-school population undergoes modification; and the sciences on which educational theory and practice depend constantly furnish new information. Secondary education, however, like any other established agency of society, is conservative and tends to resist modification. Failure to make adjustments when the need arises leads to the necessity for extensive reorganization at irregular intervals. The evidence is strong that such a comprehensive reorganization of secondary education is imperative at the present time.

1. *Changes in society.*—Within the past few decades changes have taken place in American life profoundly affecting the activities of the individual. As a citizen, he must to a greater extent and in a more direct way cope with problems of community life, State and National Governments, and international relationships. As a worker, he must adjust himself to a more complex economic order. As a relatively independent personality, he has more leisure. The problems arising from these three dominant phases of life are closely interrelated and call for a degree of intelligence and efficiency on the part of every citizen that can not be secured through elementary education alone, or even through secondary education unless the scope of that education is broadened.

The responsibility of the secondary school is still further increased because many social agencies other than the school afford less stimulus for education than heretofore. In many vocations there have come such significant changes as the substitution of the factory system for the domestic system of industry; the use of machinery in place of manual labor; the high specialization of processes with a corresponding subdivision of labor; and the breakdown of the apprentice system. In connection with home and family life have frequently come lessened responsibility on the part of the children; the withdrawal of the father and sometimes the mother from home occupations to the factory or store; and increased urbanization, result-

ing in less unified family life. Similarly, many important changes have taken place in community life, in the church, in the State, and in other institutions. These changes in American life call for extensive modifications in secondary education.

2. *Changes in the secondary-school population.*—In the past 25 years there have been marked changes in the secondary-school population of the United States. The number of pupils has increased, according to Federal returns, from one for every 210 of the total population in 1889–90, to one for every 121 in 1899–1900, to one for every 89 in 1909–10, and to one for every 73 of the estimated total population in 1914–15. The character of the secondary-school population has been modified by the entrance of large numbers of pupils of widely varying capacities, aptitudes, social heredity, and destinies in life. Further, the broadening of the scope of secondary education has brought to the school many pupils who do not complete the full course but leave at various stages of advancement. The needs of these pupils can not be neglected, nor can we expect in the near future that all pupils will be able to complete the secondary school as full-time students.

At present only about one-third of the pupils who enter the first year of the elementary school reach the four-year high school, and only about one in nine is graduated. Of those who enter the seventh school year, only one-half to two-thirds reach the first year of the four-year high school. Of those who enter the four-year high school about one-third leave before the beginning of the second year, about one-half are gone before the beginning of the third year, and fewer than one-third are graduated. These facts can no longer be safely ignored.

3. *Changes in educational theory.*—The sciences on which educational theory depends have within recent years made significant contributions. In particular, educational psychology emphasizes the following factors:

(*a*) *Individual differences in capacities and aptitudes among secondary-school pupils.* Already recognized to some extent, this factor merits fuller attention.

(*b*) *The reexamination and reinterpretation of subject values and the teaching methods with reference to "general discipline."*—While the final verdict of modern psychology has not as yet been rendered, it is clear that former conceptions of "general values" must be thoroughly revised.

(*c*) *Importance of applying knowledge.*—Subject values and teaching methods must be tested in terms of the laws of learning and the application of knowledge to the activities of life, rather than primarily in terms of the demands of any subject as a logically organized science.

(*d*) *Continuity in the development of children.*—It has long been held that psychological changes at certain stages are so pronounced as to overshadow the continuity of development. On this basis secondary education has been sharply separated from elementary education. Modern psychology, however, goes to show that the development of the individual is in most respects a continuous process and that, therefore, any sudden or abrupt break between the elementary and the secondary school or between any two successive stages of education is undesirable.

The foregoing changes in society, in the character of the secondary-school population, and in educational theory, together with many other considerations, call for extensive modifications of secondary education. Such modifications have already begun in part. The present need is for the formulation of a comprehensive program of reorganization, and its adoption, with suitable adjustments, in all the secondary schools of the Nation. Hence it is appropriate for a representative body like the National Education Association to outline such a program. This is the task entrusted by that association to the Commission on the Reorganization of Secondary Education.

II. THE GOAL OF EDUCATION IN A DEMOCRACY.

Education in the United States should be guided by a clear conception of the meaning of democracy. It is the ideal of democracy that the individual and society may find fulfillment each in the other. Democracy sanctions neither the exploitation of the individual by society, nor the disregard of the interests of society by the individual. More explicitly—

The purpose of democracy is so to organize society that each member may develop his personality primarily through activities designed for the well-being of his fellow members and of society as a whole.

This ideal demands that human activities be placed upon a high level of efficiency; that to this efficiency be added an appreciation of the significance of these activities and loyalty to the best ideals involved; and that the individual choose that vocation and those forms of social service in which his personality may develop and become most effective. For the achievement of these ends democracy must place chief reliance upon education.

Consequently, education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends.

III. THE MAIN OBJECTIVES OF EDUCATION.

In order to determine the main objectives that should guide education in a democracy it is necessary to analyze the activities of the individual. Normally he is a member of a family, of a vocational

group, and of various civic groups, and by virtue of these relationships he is called upon to engage in activities that enrich the family life, to render important vocational services to his fellows, and to promote the common welfare. It follows, therefore, that worthy home-membership, vocation, and citizenship, demand attention as three of the leading objectives.

Aside from the immediate discharge of these specific duties, every individual should have a margin of time for the cultivation of personal and social interests. This leisure, if worthily used, will recreate his powers and enlarge and enrich life, thereby making him better able to meet his responsibilities. The unworthy use of leisure impairs health, disrupts home life, lessens vocational efficiency, and destroys civic-mindedness. The tendency in industrial life, aided by legislation, is to decrease the working hours of large groups of people. While shortened hours tend to lessen the harmful reactions that arise from prolonged strain, they increase, if possible, the importance of preparation for leisure. In view of these considerations, education for the worthy use of leisure is of increasing importance as an objective.

To discharge the duties of life and to benefit from leisure, one must have good health. The health of the individual is essential also to the vitality of the race and to the defense of the Nation. Health education is, therefore, fundamental.

There are various processes, such as reading, writing, arithmetical computations, and oral and written expression, that are needed as tools in the affairs of life. Consequently, command of these fundamental processes, while not an end in itself, is nevertheless an indispensable objective.

And, finally, the realization of the objectives already named is dependent upon ethical character, that is, upon conduct founded upon right principles, clearly perceived and loyally adhered to. Good citizenship, vocational excellence, and the worthy use of leisure go hand in hand with ethical character; they are at once the fruits of sterling character and the channels through which such character is developed and made manifest. On the one hand, character is meaningless apart from the will to discharge the duties of life, and, on the other hand, there is no guarantee that these duties will be rightly discharged unless principles are substituted for impulses, however well-intentioned such impulses may be. Consequently ethical character is at once involved in all the other objectives and at the same time requires specific consideration in any program of national education.

This commission, therefore, regards the following as the main objectives of education: 1. Health. 2. Command of fundamental proc-

asses. 3. Worthy home-membership. 4. Vocation. 5. Citizenship. 6. Worthy use of leisure. 7. Ethical character.

The naming of the above objectives is not intended to imply that the process of education can be divided into separated fields. This can not be, since the pupil is indivisible. Nor is the analysis all-inclusive. Nevertheless, we believe that distinguishing and naming these objectives will aid in directing efforts; and we hold that they should constitute the principal aims in education.

IV. THE RÔLE OF SECONDARY EDUCATION IN ACHIEVING THESE OBJECTIVES.

The objectives outlined above apply to education as a whole—elementary, secondary, and higher. It is the purpose of this section to consider specifically the rôle of secondary education in achieving each of these objectives.

For reasons stated in Section X, this commission favors such reorganization that secondary education may be defined as applying to all pupils of approximately 12 to 18 years of age.

1. *Health.*—Health needs can not be neglected during the period of secondary education without serious danger to the individual and the race. The secondary school should therefore provide health instruction, inculcate health habits, organize an effective program of physical activities, regard health needs in planning work and play, and cooperate with home and community in safe-guarding and promoting health interests.

To carry out such a program it is necessary to arouse the public to recognize that the health needs of young people are of vital importance to society, to secure teachers competent to ascertain and meet the needs of individual pupils and able to inculcate in the entire student body a love for clean sport, to furnish adequate equipment for physical activities, and to make the school building, its rooms and surroundings, conform to the best standards of hygiene and sanitation.[1]

2. *Command of fundamental processes.*—Much of the energy of the elementary school is properly devoted to teaching certain fundamental processes, such as reading, writing, arithmetical computations, and the elements of oral and written expression. The facility that a child of 12 or 14 may acquire in the use of these tools is not sufficient for the needs of modern life. This is particularly true of the mother tongue. Proficiency in many of these processes may be increased more effectively by their application to new material than by the formal reviews commonly employed in grades seven and eight.

[1] For the outlines of a health program, see a report of this commission issued by the Bureau of Education as Bulletin, 1917, No. 50, "Physical Education in Secondary Schools."

Throughout the secondary school, instruction and practice must go hand in hand, but as indicated in the report of the committee on English,[1] only so much theory should be taught at any one time as will show results in practice.

3. *Worthy home-membership.*—Worthy home-membership as an objective calls for the development of those qualities that make the individual a worthy member of a family, both contributing to and deriving benefit from that membership.

This objective applies to both boys and girls. The social studies should deal with the home as a fundamental social institution and clarify its relation to the wider interests outside. Literature should interpret and idealize the human elements that go to make the home. Music and art should result in more beautiful homes and in greater joy therein. The coeducational school with a faculty of men and women should, in its organization and its activities, exemplify wholesome relations between boys and girls and men and women.

Home membership as an objective should not be thought of solely with reference to future duties. These are the better guaranteed if the school helps the pupils to take the right attitude toward present home responsibilities and interprets to them the contribution of the home to their development.

In the education of every high-school girl, the household arts should have a prominent place because of their importance to the girl herself and to others whose welfare will be directly in her keeping. The attention now devoted to this phase of education is inadequate, and especially so for girls preparing for occupations not related to the household arts and for girls planning for higher institutions. The majority of girls who enter wage-earning occupations directly from the high school remain in them for only a few years, after which home making becomes their lifelong occupation. For them the high-school period offers the only assured opportunity to prepare for that lifelong occupation, and it is during this period that they are most likely to form their ideals of life's duties and responsibilities. For girls planning to enter higher institutions—

> our traditional ideals of preparation for higher institutions are particularly incongruous with the actual needs and future responsibilities of girls. It would seem that such high-school work as is carefully designed to develop capacity for, and interest in, the proper management and conduct of a home should be regarded as of importance at least equal to that of any other work. We do not understand how society can properly continue to sanction for girls high-school curriculums that disregard this fundamental need, even though such curriculums are planned in response to the demands made by some of the colleges for women.[2]

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[1] Bureau of Education, Bulletin, 1917, No. 2, "Reorganization of English in Secondary Schools."

[2] Report of the Committee on the Articulation of High School and College, 1911.

In the education of boys, some opportunity should be found to give them a basis for the intelligent appreciation of the value of the well-appointed home and of the labor and skill required to maintain such a home, to the end that they may cooperate more effectively. For instance, they should understand the essentials of food values, of sanitation, and of household budgets.

4. *Vocation.*—Vocational education should equip the individual to secure a livelihood for himself and those dependent on him, to serve society well through his vocation, to maintain the right relationships toward his fellow workers and society, and, as far as possible, to find in that vocation his own best development.

This ideal demands that the pupil explore his own capacities and aptitudes, and make a survey of the world's work, to the end that he may select his vocation wisely. Hence, an effective program of vocational guidance in the secondary school is essential.[1]

Vocational education should aim to develop an appreciation of the significance of the vocation to the community, and a clear conception of right relations between the members of the chosen vocation, between different vocational groups, between employer and employee, and between producer and consumer. These aspects of vocational education, heretofore neglected, demand emphatic attention.

The extent to which the secondary school should offer training for a specific vocation depends upon the vocation, the facilities that the school can acquire, and the opportunity that the pupil may have to obtain such training later. To obtain satisfactory results those proficient in that vocation should be employed as instructors and the actual conditions of the vocation should be utilized either within the high school or in cooperation with the home, farm, shop, or office. Much of the pupil's time will be required to produce such efficiency.

5. *Civic education* should develop in the individual those qualities whereby he will act well his part as a member of neighborhood, town or city, State, and Nation, and give him a basis for understanding international problems.

For such citizenship the following are essential: A many-sided interest in the welfare of the communities to which one belongs; loyalty to ideals of civic righteousness; practical knowledge of social agencies and institutions; good judgment as to means and methods that will promote one social end without defeating others; and as putting all these into effect, habits of cordial cooperation in social undertakings.

The school should develop the concept that the civic duties of men and women, while in part identical, are also in part supplementary.

[1] For a comprehensive program of vocational guidance see a report of this commission issued as Bureau of Education Bulletin, 1918, No. 19. "Vocational Guidance in Secondary Schools."

Differentiation in civic activities is to be encouraged, but not to the extent of loss of interest in the common problems with which all should cope.

Among the means for developing attitudes and habits important in a democracy are the assignment of projects and problems to groups of pupils for cooperative solution and the socialized recitation whereby the class as a whole develops a sense of collective responsibility. Both of these devices give training in collective thinking. Moreover, the democratic organization and administration of the school itself, as well as the cooperative relations of pupil and teacher, pupil and pupil, and teacher and teacher, are indispensable.

While all subjects should contribute to good citizenship, the social studies—geography, history, civics, and economics—should have this as their dominant aim. Too frequently, however, does mere information, conventional in value and remote in its bearing, make up the content of the social studies. History should so treat the growth of institutions that their present value may be appreciated. Geography should show the interdependence of men while it shows their common dependence on nature. Civics should concern itself less with constitutional questions and remote governmental functions, and should direct attention to social agencies close at hand and to the informal activities of daily life that regard and seek the common good. Such agencies as child-welfare organizations and consumers' leagues afford specific opportunities for the expression of civic qualities by the older pupils.

The work in English should kindle social ideals and give insight into social conditions and into personal character as related to these conditions. Hence the emphasis by the committee on English on the importance of a knowledge of social activities, social movements, and social needs on the part of the teacher of English.

The comprehension of the ideals of American democracy and loyalty to them should be a prominent aim of civic education. The pupil should feel that he will be responsible, in cooperation with others, for keeping the Nation true to the best inherited conceptions of democracy, and he should also realize that democracy itself is an ideal to be wrought out by his own and succeeding generations.

Civic education should consider other nations also. As a people we should try to understand their aspirations and ideals that we may deal more sympathetically and intelligently with the immigrant coming to our shores, and have a basis for a wiser and more sympathetic approach to international problems. Our pupils should learn that each nation, at least potentially, has something of worth to contribute to civilization and that humanity would be incomplete without that contribution. This means a study of specific nations, their achievements and possibilities, not ignoring their limitations. Such a study of dissimilar contributions in the light of the

ideal of human brotherhood should help to establish a genuine internationalism, free from sentimentality, founded on fact, and actually operative in the affairs of nations.[1]

6. *Worthy use of leisure.*—Education should equip the individual to secure from his leisure the re-creation of body, mind, and spirit, and the enrichment and enlargement of his personality.

This objective calls for the ability to utilize the common means of enjoyment, such as music, art, literature, drama, and social intercourse, together with the fostering in each individual of one or more special avocational interests.

Heretofore the high school has given little conscious attention to this objective. It has so exclusively sought intellectual discipline that it has seldom treated literature, art, and music so as to evoke right emotional response and produce positive enjoyment. Its presentation of science should aim, in part, to arouse a genuine appreciation of nature.

The school has failed also to organize and direct the social activities of young people as it should. One of the surest ways in which to prepare pupils worthily to utilize leisure in adult life is by guiding and directing their use of leisure in youth. The school should, therefore, see that adequate recreation is provided both within the school and by other proper agencies in the community. The school, however, has a unique opportunity in this field because it includes in its membership representatives from all classes of society and consequently is able through social relationships to establish bonds of friendship and common understanding that can not be furnished by other agencies. Moreover, the school can so organize recreational activities that they will contribute simultaneously to other ends of education, as in the case of the school pageant or festival.

7. *Ethical character.*—In a democratic society ethical character becomes paramount among the objectives of the secondary school. Among the means for developing ethical character may be mentioned the wise selection of content and methods of instruction in all subjects of study, the social contacts of pupils with one another and with their teachers, the opportunities afforded by the organization and administration of the school for the development on the part of pupils of the sense of personal responsibility and initiative, and, above all, the spirit of service and the principles of true democracy which should permeate the entire school—principal, teachers, and pupils.

Specific consideration is given to the moral values to be obtained from the organization of the school and the subjects of study in the report of this commission entitled "Moral Values in Secondary

[1] For a further discussion of civic education, see the reports of this commission on "The Teaching of Community Civics" and "Social Studies in Secondary Education," issued as Bureau of Education Bulletins, 1915, No. 23, and 1916, No. 28, respectively.

Education."[1] That report considers also the conditions under which it may be advisable to supplement the other activities of the school by offering a distinct course in moral instruction.

V. INTERRELATION OF THE OBJECTIVES IN SECONDARY EDUCATION.

This commission holds that education is essentially a unitary and continuous process, and that each of the objectives defined above must be recognized throughout the entire extent of secondary education. Health needs are evidently important at all stages; the vocational purpose and content is coming properly to be recognized as a necessary and valuable ingredient even in the early stages and even when specific preparation is postponed; citizenship and the worthy use of leisure, obviously important in the earlier stages, involve certain phases of education that require maturity on the part of the pupil and hence are indispensable also in the later stages of secondary education.

Furthermore, it is only as the pupil sees his vocation in relation to his citizenship and his citizenship in the light of his vocation that he will be prepared for effective membership in an industrial democracy. Consequently, this commission enters its protest against any and all plans, however well intended, which are in danger of divorcing vocation and social-civic education. It stands squarely for the infusion of vocation with the spirit of service and for the vitalization of culture by genuine contact with the world's work.

VI. RECOGNITION OF THE OBJECTIVES IN REORGANIZING HIGH-SCHOOL SUBJECTS.

Each subject now taught in high schools is in need of extensive reorganization in order that it may contribute more effectively to the objectives outlined herein, and the place of that subject in secondary education should depend upon the value of such contribution. In Section IV of this report various references have been made to needed changes. For fuller treatment the reader is referred to reports of this commission dealing with the several subjects. These reports indicate important steps in such modifications. In each report the commission attempts to analyze the aims in terms of the objectives; to indicate the adaptation of methods of presentation to the aims accepted; and to suggest a selection of content on the basis of aims and methods.

VII. EDUCATION AS A PROCESS OF GROWTH.

Education must be conceived as a process of growth. Only when so conceived and so conducted can it become a preparation for life.

[1] Bureau of Education Bulletin, 1917, No. 51.

In so far as this principle has been ignored, formalism and sterility have resulted.

For example, civic education too often has begun with topics remote from the pupil's experience and interest. Reacting against this formalism, some would have pupils study only those activities in which they can engage while young. This extreme, however, is neither necessary nor desirable. Pupils should be led to respond to present duties and, at the same time, their interest should be aroused in problems of adult life. With this interest as a basis, they should be helped to acquire the habits, insight, and ideals that will enable them to meet the duties and responsibilities of later life. Similarly in home-making education, to neglect present duties and responsibilities toward the family of which the pupil is now a member, is to court moral insincerity and jeopardize future right conduct. With present duties as a point of departure, home-making education should arouse an interest in future home-making activities and with that interest as a basis give the training necessary.

VIII. NEED FOR EXPLICIT VALUES.

The number of years that pupils continue in school beyond the compulsory school age depends in large measure upon the degree to which they and their parents realize that school work is worth while for them and that they are succeeding in it. Probably in most communities doubt regarding the value of the work offered causes more pupils to leave school than economic necessity. Consequently, it is important that the work of each pupil should be so presented as to convince him and his parents of its real value.

IX. SUBORDINATION OF DEFERRED VALUES.

Many subjects are now so organized as to be of little value unless the pupil studies them for several years. Since a large proportion of pupils leave school in each of the successive years, each subject should be so organized that the first year of work will be of definite value to those who go no further; and this principle should be applied to the work of each year. Courses planned in accordance with this principle will deal with the simpler aspects, or those of more direct application, in the earlier years and will defer the refinements for later years when these can be better appreciated. The course as a whole will then be better adapted to the needs both of those who continue and of those who drop out of school.

X. DIVISION OF EDUCATION INTO ELEMENTARY AND SECONDARY.

Individual differences in pupils and the varied needs of society alike demand that education be so varied as to touch the leading aspects of occupational, civic, and leisure life. To this end curric-

ulums[1] must be organized at appropriate stages and the work of pupils progressively differentiated.

To accomplish this differentiation most wisely the pupil should be assisted ordinarily at about 12 or 13 years of age to begin a preliminary survey of the activities of adult life and of his own aptitudes in connection therewith, so that he may choose, at least tentatively, some field of human endeavor for special consideration. Following the period of preliminary survey and provisional choice, he should acquire a more intimate knowledge of the field chosen, including therewith an appreciation of its social significance. Those whose schooling ends here should attain some mastery of the technique involved. The field chosen will be for some as sharply defined as a specific trade; for others, it will be but the preliminary choice of a wider domain within which a narrower choice will later be made.

These considerations, reenforced by others, imply, in the judgment of this commission, a redivision of the period devoted to elementary and secondary education. The eight years heretofore given to elementary education have not, as a rule, been effectively utilized. The last two of these years in particular have not been well adapted to the needs of the adolescent. Many pupils lose interest and either drop out of school altogether or form habits of dawdling, to the serious injury of subsequent work. We believe that much of the difficulty will be removed by a new type of secondary education beginning at about 12 or 13. Furthermore, the period of four years now allotted to the high school is too short a time in which to accomplish the work above outlined.

We, therefore, recommend a reorganization of the school system whereby the first six years shall be devoted to elementary education designed to meet the needs of pupils of approximately 6 to 12 years of age; and the second six years to secondary education designed to meet the needs of pupils of approximately 12 to 18 years of age.

XI. DIVISION OF SECONDARY EDUCATION INTO JUNIOR AND SENIOR PERIODS.

The six years to be devoted to secondary education may well be divided into two periods which may be designated as the junior and senior periods. In the junior period emphasis should be placed upon the attempt to help the pupil to explore his own aptitudes and to make at least provisional choice of the kinds of work to which he will devote himself. In the senior period emphasis should be given to training in the fields thus chosen. This distinction lies at the basis of the organization of junior and senior high schools.

[1] The term "curriculum" is used by this commission to designate a systematic arrangement of subjects, and courses in those subjects, both required and elective, extending through two or more years and designed for a group of pupils whose common aims and probable careers may properly differentiate a considerable part of their work from that of other groups in the school.

In the junior high school there should be the gradual introduction of departmental instruction, some choice of subjects under guidance, promotion by subjects, prevocational courses, and a social organization that calls forth initiative and develops the sense of personal responsibility for the welfare of the group.

In the senior high school a definite curriculum organization should be provided by means of which each pupil may take work systematically planned with reference to his needs as an individual and as a member of society. The senior high school should be characterized by a rapidly developing social consciousness and by an aptitude of self-reliance based upon clearly perceived objectives.

Under ordinary circumstances the junior and senior periods should each be three years in length so as to realize their distinctive purposes. In sparsely settled communities where a senior high school can not be maintained effectively, the junior high school may well be four years in length, so that the pupils may attend school nearer to their homes for one more year.

The commission is not unmindful of the desirability, when funds permit, of extending secondary education under local auspices so as to include the first two years of work usually offered in colleges, and constituting what is known as the "junior college," but it has seemed unwise for the commission to attempt to outline the work of this new unit.

XII. ARTICULATION OF SECONDARY EDUCATION WITH ELEMENTARY EDUCATION.

Admission to high school is now, as a rule, based upon the completion of a prescribed amount of academic work. As a result many over-age pupils either leave school altogether or are retained in the elementary school when they are no longer deriving much benefit from its instruction. Should a similar conception of the articulation of the two schools continue after the elementary program has been shortened to six years, similar bad results will persist. Experience in certain school systems, however, shows that the secondary school can provide special instruction for over-age pupils more successfully than the elementary school can. *Consequently we recommend that secondary schools admit, and provide suitable instruction for, all pupils who are in any respect so mature that they would derive more benefit from the secondary school than from the elementary school.*

XIII. ARTICULATION OF HIGHER EDUCATION WITH SECONDARY EDUCATION.

In view of the important rôle of secondary education in achieving the objectives essential in American life, it follows that higher institutions of learning are not justified in maintaining entrance require-

ments and examinations of a character that handicap the secondary school in discharging its proper functions in a democracy.

As stated in Section XII of this report, the secondary school should admit all pupils who would derive greater benefit from the secondary than from the elementary school. With the demand of democratic society for extended liberal and vocational education for an ever-increasing number of persons, the higher institutions of learning, taken as a whole, are under a similar obligation with reference to those whose needs are no longer met by the secondary school and are disposed to continue their education. The conception that higher education should be limited to the few is destined to disappear in the interests of democracy.

The tradition that a particular type of education, and that exclusively nonvocational in character, is the only acceptable preparation for advanced education, either liberal or vocational, must therefore give way to a scientific evaluation of all types of secondary education as preparation for continued study. This broader conception need not involve any curtailment of opportunities for those who early manifest academic interest to pursue the work adapted to their needs. It does, however, mean that pupils who, during the secondary period, devote a considerable time to courses having vocational content should be permitted to pursue whatever form of higher education, either liberal or vocational, they are able to undertake with profit to themselves and to society.

XIV. RECOGNITION OF THE OBJECTIVES IN PLANNING CURRICULUMS.

No curriculum in the secondary school can be regarded as satisfactory unless it gives due attention to each of the objectives of education outlined herein.

Health, as an objective, makes imperative an adequate time assignment for physical training and requires science courses properly focused upon personal and community hygiene, the principles of sanitation, and their applications. Command of fundamental processes necessitates thorough courses in the English language as a means of taking in and giving forth ideas. Worthy home-membership calls for the redirection of much of the work in literature, art, and the social studies. For girls it necessitates adequate courses in household arts. Citizenship demands that the social studies be given a prominent place. Vocation as an objective requires that many pupils devote much of their time to specific preparation for a definite trade or occupation, and that some pursue studies that serve as a basis for advanced work in higher institutions. The worthy use of leisure calls for courses in literature, art, music, and science so taught

as to develop appreciation. It necessitates also a margin of free electives to be chosen on the basis of personal avocational interests.

Due recognition of these objectives will provide the elements of distribution and concentration which are recognized as essential for a well-balanced and effective education.

XV. THE SPECIALIZING AND UNIFYING FUNCTIONS OF SECONDARY EDUCATION.

1. *Their significance.*—The ideal of a democracy, as set forth in Section II of this report, involves, on the one hand, specialization whereby individuals and groups of individuals may become effective in the various vocations and other fields of human endeavor, and, on the other hand, unification whereby the members of that democracy may obtain those common ideas, common ideals, and common modes of thought, feeling, and action that make for cooperation, social cohesion, and social solidarity.

Without effective specialization on the part of groups of individuals there can be no progress. Without unification in a democracy there can be no worthy community life and no concerted action for necessary social ends. Increasing specialization emphasizes the need for unification, without which a democracy is a prey to enemies at home and abroad.

2. *The specializing function.*—Secondary education in the past has met the needs of only a few groups. The growing recognition that progress in our American democracy depends in no small measure upon adequate provision for specialization in many fields is the chief cause leading to the present reorganization of secondary education. Only through attention to the needs of various groups of individuals as shown by aptitudes, abilities, and aspirations can the secondary school secure from each pupil his best efforts. The school must capitalize the dominant interest that each boy and girl has at the time and direct that interest as wisely as possible. This is the surest method by which hard and effective work may be obtained from each pupil.

Specialization demands the following provisions in secondary education:

(*a*) *A wide range of subjects.*—In order to test and develop the many important capacities and interests found in pupils of secondary-school age, the school should provide as wide a range of subjects as it can offer effectively.

(*b*) *Exploration and guidance.*—Especially in the junior high school the pupil should have a variety of experience and contacts in order that he may explore his own capacities and aptitudes. Through a system of educational supervision or guidance he should

be helped to determine his education and his vocation. These decisions should not be imposed upon him by others.

(*c*) *Adaptation of content and methods.*—The content and teaching methods of every study should be adapted to the capacities, interests, and needs of the pupils concerned. In certain studies these factors may differ widely for various groups of pupils, e. g., chemistry should emphasize different phases in agricultural, commercial, industrial, and household-arts curriculums.

(*d*) *Flexibility of organization and administration.*—Flexibility should be secured by "election" of studies or curriculum, promotion by subjects from the beginning of the junior high school, possible transfer from curriculum to curriculum, provision for maximum and minimum assignments for pupils of greater and less ability, and, under certain conditions, for the rapid or slow progress of such pupils.

(*e*) *Differentiated curriculums.*—The work of the senior high school should be organized into differentiated curriculums. The range of such curriculums should be as wide as the school can offer effectively. The basis of differentiation should be, in the broad sense of the term, vocational, thus justifying the names commonly given, such as agricultural, business, clerical, industrial, fine-arts, and household-arts curriculums. Provision should be made also for those having distinctively academic interests and needs. The conclusion that the work of the senior high school should be organized on the basis of curriculums does not imply that every study should be different in the various curriculums. Nor does it imply that every study should be determined by the dominant element of that curriculum. Indeed any such practice would ignore other objectives of education just as important as that of vocational efficiency.

3. *The unifying function.*—In some countries a common heredity, a strongly centralized government, and an established religion contribute to social solidarity. In America, racial stocks are widely diversified, various forms of social heredity come into conflict, differing religious beliefs do not always make for unification, and the members of different vocations often fail to recognize the interests that they have in common with others. The school is the one agency that may be controlled definitely and consciously by our democracy for the purpose of unifying its people. In this process the secondary school must play an important part because the elementary school with its immature pupils can not alone develop the common knowledge, common ideals, and common interests essential to American democracy. Furthermore, children of immigrant parents attend the secondary school in large and increasing numbers; secondary education comes at a stage in the development of boys and girls when social interests

develop rapidly; and from the secondary school the majority of pupils pass directly into participation in the activities of our society.

The unifying function calls for the following provisions in secondary education:

(*a*) Studies of direct value for this purpose, especially the social studies and the mother tongue, with its literature.

(*b*) The social mingling of pupils through the organization and administration of the school.

(*c*) The participation of pupils in common activities in which they should have a large measure of responsibility, such as athletic games, social activities, and the government of the school.

4. *Specialization and unification as supplementary functions.*—With increasing specialization in any society comes a corresponding necessity for increased attention to unification. So in the secondary school, increased attention to specialization calls for more purposeful plans for unification. When there was but little differentiation in the work within the secondary school, and the pupils in attendance were less diversified as to their heredity and interests, social unification in the full sense of the term could not take place.

The supplementary character of these functions has direct bearing upon the subjects to be taken by secondary-school pupils. To this end the secondary school should provide the following groups of studies:

(*a*) *Constants*, to be taken by all or nearly all pupils. These should be determined mainly by the objectives of health, command of fundamental processes, worthy home-membership, citizenship, and ethical character.

(*b*) *Curriculum variables*, peculiar to a curriculum or to a group of related curriculums. These should be determined for the most part by vocational needs, including, as they frequently do, preparation for advanced study in special fields.

(*c*) *Free electives*, to be taken by pupils in accordance with individual aptitudes or special interests, generally of a nonvocational nature. These are significant, especially in preparation for the worthy use of leisure.

The constants should contribute definitely to unification, the curriculum variables to specialization, and the free electives to either or both of these functions.

In the seventh year, that is the first year of the junior high school, the pupil should not be required to choose at the outset the field to which he will devote himself. For those who do not at this time have a definite purpose, opportunity should be given to gain some experience with several significant types of work, such as some form of industrial arts, gardening or other agricultural activity, typewriting or problems drawn from business, household arts for girls, and for at least a part of the pupils some work in a foreign language.

It may be found feasible to organize several such subjects or projects into short units and to arrange the schedule so that every pupil may take several of them. The work thus offered may and should be of real educational value, in addition to its exploratory value.

In the two following years of the junior high school, some pupils should continue this trying-out process, while others may well devote one-fourth to one-half of their time to curriculum variables. Pupils who will probably enter industry at the end of the ninth grade may well give as much as two-thirds of their time to vocational preparation, but they must not be permitted to neglect preparation for citizenship and the worthy use of leisure.

In the senior high school the relative proportion of these three groups of subjects will vary with the curriculum. Pupils who are to enter a gainful occupation before the completion of the senior high school may well devote a large proportion of their time to the curriculum variables, especially during their last year in school.

In brief, the greater the time allowed for curriculum variables, the more purposeful should be the time devoted to the constants in order that the school may be effective as an agency of unification. Above all, the greater the differentiation in studies, the more important becomes the social mingling of pupils pursuing different curriculums.

The supplementary character of the specializing and unifying functions has a direct bearing also upon the type of high school best suited to the needs of democratic society, as discussed in the next section.

XVI. THE COMPREHENSIVE HIGH SCHOOL AS THE STANDARD SECONDARY SCHOOL.

The comprehensive (sometimes called composite, or cosmopolitan) high school, embracing all curriculums in one unified organization, should remain the standard type of secondary school in the United States.

Junior high schools must be of the comprehensive type, whatever policy be adopted for the senior high schools, since one of the primary purposes of the junior high school is to assist the pupil through a wide variety of contacts and experiences to obtain a basis for intelligent choice of his educational and vocational career. In the judgment of the commission senior high schools and four-year high schools of the older organizations should, as a rule, be of the comprehensive type for the following reasons:

1. *For effectiveness of vocational education.*—When effectively organized and administered (see pp. 27 to 29) the comprehensive high school can make differentiated education of greater value to the individual and to society, for such value depends largely upon the extent to which the individual pursues the curriculum best suited

to his needs. This factor is of prime importance, although frequently ignored in discussions regarding the effectiveness of vocational and other types of differentiated education.

In a system of special-type schools many influences interfere with the wise choice of curriculum. Thus many pupils choose the high school nearest to their homes, or the school to which their friends have gone or are going, or the school that provides the most attractive social life or has the best athletic teams. Still others are unwisely influenced by the notions of neighbors and friends of the family. After entering a special-type school, many pupils drop out because the work is not adapted to their needs, while comparatively few transfer to another school.

In a comprehensive school the influences interfering with a wise choice of curriculum may be reduced to a minimum. When an unwise choice has been made the pupil may be greatly aided in discovering a curriculum better adapted to his needs because he can see other work in the school, talk with school companions, and confer with teachers who are able to give him expert advice regarding such curriculums. When such a pupil has found a curriculum better adapted to his needs, he can be transferred to it without severance of school relationships and, what seems to him, the sacrifice of school loyalty.

Moreover, pupils in comprehensive schools have contacts valuable to them vocationally, since people in every vocation must be able to deal intelligently with those in other vocations, and employers and employees must be able to understand one another and recognize common interests. Similarly, teachers in comprehensive schools have a better opportunity to observe other curriculums and are thereby better able to advise pupils intelligently.

Summarizing under this head, the well-organized comprehensive school can make differentiated education of greater value than can the special-type school, because it aids in a wise choice of curriculum, assists in readjustments when such are desirable, and provides for wider contacts essential to true success in every vocation.

2. *For unification.*—When administered by a principal who himself recognizes the social value of all types of secondary education and inspires a broad spirit of democracy among teachers and pupils, the comprehensive high school is a better instrument for unification. Through friendships formed with pupils pursuing other curriculums and having vocational and educational goals widely different from their own, the pupils realize that the interests which they hold in common with others are, after all, far more important than the differences that would tend to make them antagonistic to others. Through school assemblies and organizations they acquire common ideas. Through group activities they secure training in cooperation Through loyalty to a school which includes many groups they are

prepared for loyalty to State and Nation. In short, the comprehensive school is the prototype of a democracy in which various groups must have a degree of self-consciousness as groups and yet be federated into a larger whole through the recognition of common interests and ideals. Life in such a school is a natural and valuable preparation for life in a democracy.

3. *For objectives other than vocation.*—A comprehensive high school can provide much more effectively for health education, education for the worthy use of leisure, and home-making education than a number of smaller special-type schools can.

The most effective health education requires adequate equipment and instructors competent to diagnose health needs and direct health activities. Expenses and difficulties of duplication of such facilities in every smaller special-type school are almost prohibitive. Preparation for the worthy use of leisure is best achieved when there is a wide variety of activities from which pupils may select, such as arts and crafts clubs, literary and debating societies, and musical organizations. All of these require for their success enthusiastic leadership such as can best be secured from a large faculty. Girls in all curriculums should have the advantages of work in household arts under efficient directors and with adequate equipment. Such conditions are most readily provided in the comprehensive school where there is a strong department of household arts.

With the establishment of a special-type high school it frequently happens that various important phases of education are neglected or minimized in the other schools of that system.

4. *For accessibility.*—In cities large enough to require more than one high school it is desirable to have each school so located as to serve a particular section of the city, thereby reducing the expense and loss of time involved in travel on the part of pupils. The proximity of the school to the homes results also in greater interest in education on the part of pupils and parents, and consequently increases the drawing and holding power of the school.

5. *Adaptation to local needs.*—In recommending the comprehensive high school as the standard secondary school the commission recognizes that in large cities where two or more high schools are needed it is not always possible to provide every curriculum in each high school, such a practice being precluded by the fact that certain curriculums would thereby enroll in the several schools too few pupils to permit economical organization and administration. In such cases a few curriculums may well appear in selected comprehensive schools or even in a single school only, while other curriculums appear in every school.

The commission also recognizes the impracticability of offering every curriculum in every small rural high school. In such cases it

is desirable that a curriculum for which the number of pupils does not warrant such duplication should be offered in selected schools, and that pupils needing that curriculum should go to those schools. This plan is substantially the same as that recommended for the large city.

6. *Effective organization of curriculums in comprehensive high schools.*—Finally, the commission recognizes that in the past relatively ineffective instruction has been afforded in some comprehensive schools. This has been due in part to the fact that everywhere vocational education has been passing and is still passing through a period of experimentation. The commission believes, however, that the most serious defect in vocational education in the comprehensive high school has been due to a lack of proper organization and administration. Effective vocational education can not be secured when administered like so many accidental groupings of subjects. To remedy this situation the commission recommends that each curriculum, or group of closely related curriculums, in the large comprehensive high school be placed under the supervision of a director whose task it shall be to organize that curriculum and maintain its efficiency. The curriculum directors must work under the general direction of the principal, who must be the coordinator of all the activities of the school. Especially is it necessary that each director shall be selected with the same care that would be exercised in choosing the principal of a special-type school enrolling as many pupils as are enrolled in the curriculum or curriculums under his direction. In medium-sized high schools unable to employ directors for the various curriculums, the teachers should be organized into committees to consider the problems of the various curriculums, all working under the direction of the principal.

Unless the various curriculums are effectively organized and administered, and unless the democratic spirit pervades the school, the comprehensive high school is in danger of failure; with these factors present, it has every promise of success.

XVII. RECOGNITION OF THE OBJECTIVES IN ORGANIZING THE SCHOOL.

The objectives must determine the organization, or else the organization will determine the objectives. If the only basis upon which a high school is organized is that of the subjects of study, each department being devoted to some particular subject, there will result an over-valuation of the importance of subjects as such, and the tendency will be for each teacher to regard his function as merely that of leading the pupils to master a particular subject, rather than that of using the subjects of study and the activities of the school as means for achieving the objectives of education. The

departmental organization is desirable but needs to be supplemented. The two following methods are suggested:

(A) *The Principal's Council.*

The principal may select from his teachers a council, each member of which shall be charged with the responsibility of studying the activities of the school with reference to a specific objective. Plans for realizing these objectives should be discussed by the principal and the council. Without impairing in any way the ultimate responsibility of the principal, it will, as a rule, increase the efficiency of the school if the principal encourages initiative on the part of these council members and delegates to them such responsibilities as he finds they can discharge. The members of such a council and their duties are suggested as follows:

Health director.—This council member should seek to ascertain whether the health needs of the pupils are adequately met. For this purpose he should consider the ventilation and sanitation of the building, the provisions for lunch, the posture of pupils, the amount of home work required, the provisions for physical training, and the effects of athletics. He should find out whether the pupils are having excessive social activities outside of school, and devise means for gaining the cooperation of parents in the proper regulation of work and recreation. He may well see whether the teaching of biology is properly focused upon hygiene and sanitation.

Citizenship director.—The citizenship director should determine whether the pupils are developing initiative and the sense of personal responsibility. He should foster civic-mindedness through the school paper, debating society, and general school exercises, and give suggestions for directing the thinking of the pupils to significant problems of the day.

Curriculum directors.—As discussed in Section XVI of this report, for each important group of vocations for which the school offers a curriculum, or group of curriculums, there should be a director to study the needs of these vocations and find out the respects in which the graduates are succeeding or failing in meeting legitimate vocational demands. With the knowledge thus gained he should strive to improve the work offered by the school.

One of these curriculum directors should have charge of preparation for colleges and normal schools. He should obtain the records of graduates attending those schools and find out the strong and weak points in their preparation. He will advise with pupils intending to enter these institutions as to the work that they should take in the high school.

Director of vocational and educational guidance.—This member of the council should collect data regarding various vocational and edu-

cational opportunities and the qualifications needed. If the school is small, he may help individual pupils in acquiring an intelligent attitude toward the choice of a vocation or of a higher education; but if the school is large, he must train others who can know the pupils more intimately, to assist in this service, always holding himself ready to give advice.

Director of preparation for leisure.—This council member should, so far as possible, see that the pupils are developing interests that will assist them in later life to use their leisure wisely. He should consider especially the musical organizations, the school library, the art clubs and classes, and the various ways in which pupils are spending their leisure.

The large school may have need for additional directors to deal with other vital phases of education.

(B) *By Committees.*

The principal may appoint committees of teachers each of which would be charged with duties similar to those described. An advantage of the committee plan is that a larger number of teachers will be stimulated to acquire a broad educational point of view.

Theoretically, it is possible for the principal himself to supervise the teaching and direct all the activities of the school. Practically, however, the majority of administrators tend to become absorbed in a few aspects of education. In fact, intensive creative work along any one line on the part of the principal leads naturally to at least a temporary neglect of the other aspects of education. Consequently, either a principal's council or committees of teachers seem essential in order that none of the objectives may be neglected.

It is not intended that the council or the committees should in any way lessen the ultimate responsibility of the principal, but that by this means the cooperation of the entire teaching body may be secured and all the objectives held in view.

XVIII. SECONDARY EDUCATION ESSENTIAL FOR ALL YOUTH.

To the extent to which the objectives outlined herein are adopted as the controlling aims of education, to that extent will it be recognized that an extended education for every boy and girl is essential to the welfare, and even to the existence, of democratic society. The significance of these objectives is becoming more and more apparent under modern conditions in our democracy. These conditions grow out of increased knowledge of science with its rapidly extending applications to all the affairs of life, keener competition with its attendant dangers, closer contacts of peoples of varied racial and religious types, and greater assertiveness of all men and women in the control of their own destinies. These and many other tendencies

increase the significance of health, worthy home-membership, vocation, citizenship, the worthy use of leisure, and ethical character.

Each of these objectives requires for its realization not only the training and habit formation that the child may secure, but also the intelligence and efficiency that can not be developed before adolescence. In fact, their realization calls for the full period allotted to both the junior and senior high schools.

Consequently, this commission holds that education should be so reorganized that every normal boy and girl will be encouraged to remain in school to the age of 18, on full time if possible, otherwise on part time.

XIX. PART-TIME SCHOOLING AS A COMPULSORY MINIMUM REQUIREMENT.

As stated in Section I of this report, only one American youth in about three reaches the first year of the four-year high school, and only one in about nine remains in school to the end of the high-school course. This condition is, in the last analysis, due principally to four causes: First, the limited range of instruction commonly offered by secondary schools; second, the failure on the part of the school adequately to demonstrate to young people and their parents the value of the education offered; third, the lure of employment, together with the desire for increased economic independence on the part of young persons; and fourth, economic pressure in the family, real or imagined.

The first of these causes is rapidly disappearing through the introduction of curriculums with rich vocational content. The second may be removed by subordinating deferred values and reorganizing instruction so as to make the values more evident to the learner, as discussed in Sections VIII and IX. The third may be diminished in its effect by greater virility in school work. Economic pressure will continue until social conditions can be materially improved.

In the meantime, a sound national policy dictates the urgent need for legislation whereby all young persons, whether employed or not, shall be required to attend school not less than eight hours in each week that schools are in session until they reach the age of 18.

Attendance for eight hours in each week will make possible important progress not only in vocational efficiency but also in the promotion of health, preparation for worthy home-membership, civic intelligence and efficiency, the better utilization of leisure, and ethical development. All these objectives are evidently as important for the young worker as for those who remain in full-time attendance at school.

The value of part-time instruction, if properly organized, is out of all proportion to the time involved, because it can utilize as a basis

the new experiences of the young worker and his new social and civic contacts. Moreover, continued attendance at school will afford an intellectual stimulus too often lacking to these young persons under the modern subdivision of labor.

Consequently, this commission recommends the enactment of legislation whereby all young persons up to the age of 18, whether employed or not, shall be required to attend the secondary school not less than eight hours in each week that the schools are in session.

In some States it may be held to be impracticable at the outset to require such part-time attendance beyond the age of 16 or 17, but the commission holds that the imperative needs of American democracy can not be met until the period is extended to 18.

To make this part-time schooling effective it will be necessary to adapt it specifically to the needs of the pupils concerned. Moreover, teachers must be trained for this new type of work. Without such provisions there is great danger of failure and a consequent reaction against this most valuable extension of secondary education.

In view of the importance of developing a sense of common interests and social solidarity on the part of the young worker and those of his fellows who are continuing in full-time attendance at school, it appears to this commission that this part-time education should be conducted in the comprehensive secondary school rather than in separate continuation schools, as is the custom in less democratic societies. By this plan the part-time students and the full-time students may share in the use of the assembly hall, gymnasium, and other equipment provided for all. This plan has the added advantage that the enrollment of all pupils may be continuous in the secondary school, thus furthering employment supervision on the one hand and making easier a return to full-time attendance whenever the lure of industry or the improvement of economic conditions in the family makes such a return inviting and feasible.

The part-time attendance for eight hours a week of all persons between 14 and 18 who are not now in school will require a large increase in the teaching force in secondary schools. No other single piece of educational legislation could, however, do more to raise the level of intelligence and efficiency and to insure the welfare of democracy.

XX. CONCLUSION.

In concluding this report on the cardinal principles of secondary education the commission would call attention to its 17 other reports in which the principles herein set forth are applied to the various aspects of secondary education. The reports now available are listed on the last page of this bulletin, and other are nearly ready for publication. One report will consider in detail the application of these

principles to the organization and administration of secondary schools. Thirteen reports deal with the aims, methods, and content of the various subjects of study and curriculums in the light of these principles. Three others discuss vocational guidance, physical education, and the moral values that should be derived from secondary-school organization and instruction.

It is becoming increasingly apparent that the problems of secondary education merit much more serious attention than they have received heretofore. The study of the best methods for adapting secondary education to the needs of modern democratic life is but begun. The physical, intellectual, emotional, and ethical characteristics of young people are still but vaguely comprehended. Such knowledge of social needs and educational theory and practice as is already available has been seriously studied by comparatively few administrators and teachers. Progress will depend very largely upon adequate professional training of teachers both before and after entering upon service. Plans must be adopted for pooling the results of successful experimentation on the part of individual teachers. To make the reorganization effective, competent supervision and constructive leadership must be provided in the various fields of secondary education.

It is the firm belief of this commission that secondary education in the United States must aim at nothing less than complete and worthy living for all youth, and that therefore the objectives described herein must find place in the education of every boy and girl.

Finally, in the process of translating into daily practice the cardinal principles herein set forth, the secondary school teachers of the United States must themselves strive to explore the inner meaning of the great democratic movement now struggling for supremacy. The doctrine that each individual has a right to the opportunity to develop the best that is in him is reinforced by the belief in the potential, and perchance unique, worth of the individual. The task of education, as of life, is therefore to call forth that potential worth.

While seeking to evoke the distinctive excellencies of individuals and groups of individuals, the secondary school must be equally zealous to develop those common ideas, common ideals, and common modes of thought, feeling, and action, whereby America, through a rich, unified, common life, may render her truest service to a world seeking for democracy among men and nations.

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EDUCATIONAL DIRECTORY, 1918-19.

Including changes reported to the Bureau of Education to January 10, 1919.

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II.—Department of State: Educational Activities.

(1) School of Consular Instruction, Washington, D. C.
(2) Student Interpreters' Schools: (*a*) Constantinople, Turkey; (*b*) Tokyo, Japan; (*c*) Peking, China.

III.—Department of War: Military Educational Activities.

1. Military Academy, West Point, N. Y.
2. The Army War College, Washington, D. C.
3. The Army Service Schools, Fort Leavenworth, Kans. (This group of schools is not functioning at this post at present.)
4. The Army Medical School, Washington, D. C.
5. Medical Officers' Training Camps: (*a*) Camp Greenleaf, Fort Oglethorpe, Ga. (training of men for base hospitals and lines of communication); (*b*) Fort Riley, Kans. (training of regimental units).
6. Division of Physical Reconstruction: Educational Staff. The Surgeon General of the Army has designated the following general military hospitals for the work of physical reconstruction of disabled soldiers:[1]

(1) Walter Reed General Hospital, Washington, D. C.; (2) General Hospital No. 2, Fort McHenry, Md.; (3) General Hospital No. 3, Colonia, N. J.; (4) General Hospital No. 6, Fort McPherson, Ga.; (5) General Hospital No. 7, Roland Park, Baltimore, Md. (for the blind); (6) General Hospital No. 8, Otisville, N. Y.; (7) General Hospital No. 4, Fort Porter, N. Y.; (8) General Hospital No. 9, Lakewood, N. J.; (9) General Hospital No. 11, Cape May, N. J.; (10) General Hospital No. 16, New Haven, Conn.; (11) General Hospital No. 17, Markleton, Pa.; (12) Letterman General Hospital, San Francisco, Cal.; (13) United States Army Hospital, Fort Des Moines, Iowa; (14) Plattsburg Barracks Hospital, Plattsburg Barracks, N. Y.; (15) General Hospital, Fort Bayard, N. Mex.

7. Engineer Training Schools:[2] Camp Shelby, Miss.; Camp Greene, N. C.; Fort Leavenworth, Kans.; Camp Fremont, Cal.; Fort Benjamin Harrison, Ind.; Camp Humphreys, Va.; Camp Forrest, Ga.; Camp Leach (American University), D. C.
8. The Coast Artillery School, Fort Monroe, Va.
9. The School of Fire for Field Artillery, Fort Sill, Okla.

10. ORDNANCE SCHOOLS.[3]

(*a*) Ordnance maintenance and repair schools, Raritan Arsenal, Metuchen, N. J. (for the purpose of training both ordnance officers and enlisted men to become officers); (*b*) Ordnance welding school, Peoria, Ill. (for training enlisted men in oxy-acetylene welding); (*c*) Railway artillery school, Aberdeen Proving Ground, Aberdeen, Md. (for training both officers and enlisted men); (*d*) Instrument repair school, Frankford Arsenal, Pa. (for training both officers and enlisted men); (*e*) Ordnance gun reclining school, Watervliet Arsenal, Watervliet, N. Y. (for training of machinists and mechanics in gun reclining for duty in base repair shops overseas); (*f*) Ordnance engineering school, Aberdeen Proving Ground, Aberdeen, Md. (for training both officers and enlisted men to become officers); (*g*) Ordnance supply school, Camp Hancock, Ga. (for training of advance enlisted men); (*h*) Ordnance concentration camp, Camp Hancock, Ga.

The Ordnance Bureau, through its Community Organization Branch, Industrial Service Section (Production Division), F. C. Butler in charge, is establishing elementary schools on its reservations, where the local authorities are not able to take care of the school population on their own reservations.

Jacksonville (near Nashville), Tenn., Charles E. Dryden, Superintendent of Schools, P. O. Box 612.
Hercules Powder Co., Nitro (near Charleston), W. Va., Hugh S. Mead, Superintendent of Schools.
Muscle Shoals, Ala., R. F. Myers, Superintendent of Schools.
Bethlehem Loading Co., Mays Landing, N. J., Stanley S. Kilkenney, Superintendent of Schools.
Atlas Powder Co., Perryville, Md., Agnes B. Morrison, supervising principal.
Penniman, Va., Karl L. Kregloe, Superintendent of Schools, P. O. Box 94.
Seven Pines (near Richmond), Va., Floyd B. Mann, Superintendent of Schools.
Atlantic Loading Co., Amatol, N. J., Elsa Jones, acting principal of schools.

11. AVIATION SCHOOLS (DIVISION OF MILITARY AERONAUTICS).

Primary Training.

(*a*) *Ground Schools:* Princeton University, Princeton, N. J.; University of Texas, Austin, Tex.; Cornell University, Ithaca, N. Y.; University of California, Berkeley, Cal.; University of Illinois, Urbana, Ill.; Camp Dick (intermediate gunnery).

(*b*) *Flying Schools:* Scott Field, Belleville, Ill.; Chanute Field, Rantoul, Ill.; Barron Field, Everman, Tex.; Carruthers Field, Benbrook, Tex.; Kelly Field (2 units), San Antonio, Tex.; Rich Field, Waco, Tex.; Eberts Field, Lonoke, Ark.; Taylor Field, Montgomery, Ala.; March Field, Riverside, Cal.; Mather Field, Sacramento, Cal.; Payne Field, West Point, Miss.; Love Field, Dallas, Tex.; Souther Field, Americus, Ga.; Park Field, Millington, Tenn.

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[1] "The reconstruction work in the hospitals will emphasize technical training in all lines capable of adaptation to the physical limitations of disabled men and in which employment will act as a therapeutic agent."—*Carry On.* Vol. 1, Sept., 1918, p. 30.

[2] See also Officers' Training Schools.

[3] The training of ordnance supply personnel is also carried on through the medium of 36 Ordnance Field Depots in this country, where a system of rotation of personnel has been devised where both the commissioned and enlisted personnel of these field depots receive a complete general training in ordnance supply work. The ordnance supply personnel required for this country and for duty overseas is furnished through this medium.

Advanced Training.

(*a*) *Bombing:* Gerstner Field (elementary), Lake Charles, La.; Ellington Field (advanced), Houston, Tex.

(*b*) *Observation:* Call Field (elementary), Wichita Falls, Tex.; Post Field (advanced), Fort Sill, Okla.; Langley Field (advanced), Hampton, Va.

(*c*) *Pursuit:* Wilbur Wright Field (Armorer's school, gunnery course—elementary), Fairfield, Ohio; Rockwell Field (advanced), San Diego, Cal.; Carlstrom Field (advanced), Arcadia, Fla.

(*d*) *Gunnery:* San Leon Field, Houston, Tex.; Taliaferro Field, Hicks, Tex.; Selfridge Field, Mount Clemens, Mich.; Rockwell Field, San Diego, Cal.; Dow Field, Arcadia, Fla.

Auxiliary Schools.

Armorer's School: Wilbur Wright Field, Fairfield, Ohio.

School for Radio Mechanics: Carnegie Institute of Technology, Pittsburgh, Pa.

School for Radio Operators: Penn Field, Austin, Tex.

School for Radio Officers: Columbia University, New York, N. Y.

Photographic Schools: Langley Field, Hampton, Va.; U. S. School of Aerial Photography, Rochester, N. Y.; Cornell University, Ithaca, N. Y.

Preliminary Photographic School: Madison Barracks, Sacket Harbor, N. Y.

Instructors' Schools: Brooks Field, San Antonio, Tex.

Mechanics' Training Schools: Air Service Training School, Kelly Field, San Antonio, Tex.; Air Service Mechanics' Training School, Overland Building, St. Paul, Minn.

Firing Centers.

Commanding Officer: Attention Radio Officer, Headquarters, Military Aeronautics, Camp Jackson, S. C.

Air Service Radio Officer, through C. O. Field Artillery Brigade Firing Center, Camp Doniphan, Fort Sill, Okla.; Camp McClellan, Anniston, Ala.; Camp Knox, West Point, Ky.

Balloon Schools.

Army Balloon School, Fort Omaha, Nebr.; Army Balloon School, Lee Hall, Va.; Army Balloon School Arcadia, Cal.; Camp John Wise, San Antonio, Tex.; Balloon Detachment, Fort Monroe, Va.; Balloon Detachment, Fort Sill, Okla.; Balloon Detachment, Langley Field, Va.; Balloon Detachment, Camp McClellan, Anniston, Ala.; Thirty-first Balloon Company, West Point, Ky.; Forty-first Balloon Company, Camp, Jackson, Columbia, S. C.

12. The Schools for Bakers and Cooks: Camp Beauregard, Alexandria, La.; Camp Bowie, Fort Worth, Tex.; Camp Cody, Deming, N. Mex.; Camp Custer, Battle Creek, Mich.; Camp Devens, Ayer, Mass.; Camp Dix, Wrightstown, N. J.; Camp Dodge, Des Moines, Iowa; Camp Fremont, Palo Alto, Cal.; Camp Funston, Fort Riley, Kans.; Camp Gordon, Chamblee, Ga.; Camp Grant, Rockford, Ill.; Camp Greene, Charlotte, S. C.; Camp Hancock, Augusta, Ga.; Camp Humphreys, Accotink, Va.; Camp Jackson, Columbia, S. C.; Camp Kearny, Linda Vista, Cal.; Camp Lee, Petersburg, Va.; Camp Lewis, American Lake, Wash.; Camp Logan, Houston, Tex.; Camp McArthur, Waco, Tex.; Camp McClellan, Anniston, Ala., Camp Meade, Admiral, Md.; Camp Merritt, Dumont, N. J.; Camp Pike, Little Rock, Ark.; Camp Sevier, Greenville, S. C.; Camp Shelby, Hattiesburg, Miss.; Camp Sheridan, Montgomery, Ala.; Camp Sherman, Chillicothe, Ohio; Camp Taylor, Louisville, Ky.; Camp Travis, San Antonio, Tex.; Camp Upton, Yaphank, L. I.; Camp Wadsworth, Spartansburg, S. C.; Camp Wheeler, Macon, Ga.; Fort McKinley, P. I.; Fort Riley, Kans.; Fort Sam Houston, Tex.; Fort Shafter, Hawaii; Kelly Field, San Antonio, Tex.; Presidio, San Francisco, Cal.

13. Chemical War Service School, Camp Humphreys, Va.

14. Tank Corps School, Gettysburg, Pa.

15. Motor Transport School, Camp Joseph E. Johnston, Jacksonville, Fla.; Camp Meigs, Washington, D. C.; Camp Holabird, Baltimore, Md.; Camp Jesup, Atlanta, Ga.; Camp Normoyle, San Antonio, Tex.

16. Signal Corps.

17. Officers' Training Schools:

(1) Central Infantry Officers' Training Schools: Camp Lee, Va.; Camp Gordon, Ga.; Camp Pike, Ark.; Camp Grant, Ill.; Camp McArthur, Tex.

(2) Central Field Artillery Officers' Training School: Camp Zachary Taylor, Ky.

(3) Central Engineer Officers' Training School: Camp Humphreys, Va.

(4) Signal Corps Officers' Training School: Camp Meade, Md.[1]

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[1] The personnel of this corps is drawn from the following schools: *School for radio electricians*—University of California; City College of New York; Indiana University; University of Nebraska; Dodge Institute Valparaiso. Ind.; Oregon Agricultural College; Purdue University, West Lafayette, Ind.; Texas Agricultural and Mechanical College; Tulane University, New Orleans, La.; University of Vermont; University of West Virginia; University of Wisconsin. *Telephone electricians*—University of Michigan; University of Minnesota; University of Utah. *School of military photography*—Columbia University, New York City. *School of meteorology*—Texas Agricultural and Mechanical College. *School of multiplex telegraphy*—City College of New York. *School for technical radio men*—Yale University, New Haven, Conn.

(5) Central Cavalry Officers' Training School: Camp Stanley, Tex.
(6) Central Machine Gun Officers' Training School: Camp Hancock, Ga.
(7) Coast Artillery Candidates' School: Fort Monroe, Va.
(8) Quartermaster Officers' Training Camp: Camp Joseph E. Johnston, Jacksonville, Fla.

17. UNITS OF THE STUDENTS' ARMY TRAINING CORPS.[1]

Section A.—Collegiate.[2]

Alabama.—Alabama Polytechnic Institute, Auburn; University of Alabama, University; Birmingham Southern College, Birmingham; Howard College, Birmingham; Spring Hill College, Spring Hill; State Normal School, Jacksonville; State Normal School, Troy; Talladega College (colored), Talladega.

Arizona.—University of Arizona, Tucson.

Arkansas.—Arkansas Baptist College (colored), Little Rock; Arkansas College, Batesville; Arkansas Cumberland College, Clarksville; University of Arkansas, Fayetteville; Henderson-Brown College, Arkadelphia; Hendrix College, Conway; Little Rock College, Little Rock; Ouachita College, Arkadelphia; Philander Smith College (colored), Little Rock; Second District Agricultural School, Russellville; State School of Agriculture, Jonesboro.

California.—University of California, Berkeley; College of Physicians and Surgeons, San Francisco; Leland Stanford University, Stanford University; Los Angeles State Normal, Los Angeles; Occidental College, Los Angeles; University of the Pacific, San Jose; Pomona College, Claremont; University of Redlands, Redlands; San Diego Junior College, San Diego; University of Santa Clara, Santa Clara; St. Ignatius University, San Francisco; St. Mary's College, Oakland; University of Southern California, Los Angeles; Throop College of Technology, Pasadena.

Colorado.—Colorado Agricultural College, Fort Collins; Colorado College, Colorado Springs; Colorado College of Dental Surgery, Denver; Colorado State Teachers' College, Greeley; University of Colorado, Boulder; University of Denver, Denver; State School of Mines, Golden.

Connecticut.—Connecticut Agricultural College, Storrs; Trinity College, Hartford; Wesleyan University, Middletown; Yale University, New Haven.

Delaware.—Delaware College, Newark.

District of Columbia.—Catholic University of America, Washington; Georgetown University, Washington; George Washington University, Washington; Howard University (colored), Washington.

Florida.—Florida University, Gainesville; John B. Stetson University, De Land; Southern College, Sutherland.

Georgia.—Atlanta Southern Dental College, Atlanta; Atlanta University (colored), Atlanta; Emory University, Atlanta; Georgia School of Technology, Atlanta; University of Georgia, Athens; Mercer University, Macon; Morehouse College (colored), Atlanta; North Georgia Agricultural College, Dahlonega; Oglethorpe University, Oglethorpe.

Hawaii.—Hawaii College, Honolulu.

Idaho.—Idaho University, Moscow.

Illinois.—Armour Institute of Technology, Chicago; Augustana College, Rock Island; Bradley Polytechnic Institute, Peoria; Carthage College, Carthage; Chicago College of Dental Surgery, Chicago; Chicago University, Chicago; Chicago Veterinary College, Chicago; Crane Junior College, Chicago; De Paul University, Chicago; Eureka College, Eureka; Greenville College, Greenville; Hahneman Medical School, Chicago; Hedding College, Abingdon; Illinois College, Jacksonville; Illinois University, Urbana; Illinois Wesleyan University, Bloomington; James Milliken University, Decatur; Knox College, Galesburg; Lake Forrest College, Lake Forrest; Lewis Institute, Chicago; Lombard College, Galesburg; Loyola University, Chicago; McKendree College, Labanon; Monmouth College, Monmouth; Northwestern College, Naperville, Northwestern University, Evanston; St. Ignatius College, Chicago; St. Viator College, Bourbonnais; Shurtleff College, Upper Alton; Wheaton College, Wheaton; Y. M. C. A. College, Chicago.

Indiana.—Butler College, Indianapolis; Central State Normal College, Danville; De Pauw University, Greencastle; Franklin College, Franklin; Hanover College, Hanover; Huntington College, Huntington; Indiana Dental College, Indianapolis; Indiana State Normal School, Terre Haute; Indiana University, Bloomington; Indiana Veterinary College, Indianapolis; University of Notre Dame, Notre Dame; Oakland City College, Oakland City; Purdue University, West Lafayette; Rose Polytechnic Institute, Terre Haute; State Normal School, Muncie; Taylor University, Upland; Tri-State College, Angola; Valparaiso University, Valparaiso; Wabash College, Crawfordsville.

Iowa.—Buena Vista College, Storm Lake; Central College, Pella; Coe College, Cedar Rapids; Cornell College, Mount Vernon; Des Moines College, Des Moines; Drake University, Des Moines; Dubuque College, Dubuque; Dubuque College and Seminary, Dubuque; Ellsworth College, Iowa Falls; Grinnell College, Grinnell; Iowa State College of Agriculture and Mechanic Arts, Ames; Iowa State Teachers' College, Cedar Falls; University of Iowa, Iowa City; Iowa Wesleyan College, Mount Pleasant; Luther College, Decorah; Morningside College, Sioux City; Parsons College, Fairfield; Simpson College, Indianola, Upper Iowa University, Fayette.

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[1] The Student's Army Training Corps is administered by the Committee on Education and Special Training, of the War Department, Mills Building, Washington, D. C.

[2] Up to and including Oct. 14, 1918. In some case provisional and subject to change.

Kansas.—Baker University, Baldwin City; Bethany College, Lindsborg; Central College, McPherson; College of Emporia, Emporia; Cooper College, Sterling; Fairmont College, Wichita; Fort Hays Normal School, Hays City; Kansas State Agricultural College, Manhattan; Kansas State Normal, Emporia; University of Kansas, Lawrence; Kansas Wesleyan University, Salina; Midland College, Atchison; Ottawa University, Ottawa; St. Mary's College, St. Marys; Southwestern College, Winfield; State Manual Training Normal School, Pittsburg; Washburn College, Topeka.

Kentucky.—Berea College, Berea; Bethel College, Russellville; Center College, Danville; Eastern Kentucky State Normal School, Richmond; Georgetown College, Georgetown; University of Kentucky, Lexington; Kentucky Wesleyan College, Winchester; University of Louisville, Louisville; Ogden College, Bowling Green; Transylvania College, Lexington; Western Kentucky State Normal School, Bowling Green.

Louisiana.—Jefferson College, Convent; Louisiana College, Pineville; Louisiana Industrial Institute, Ruston; Louisiana State University, Baton Rouge; Loyola University, New Orleans; St. Charles College, Grand Coteau; Southwestern Louisiana Industrial Institute, Lafayette; Tulane University, New Orleans.

Maine.—Bates College, Lewiston; Bowdoin College, Brunswick; Colby College, Waterville; University of Maine, Orono.

Maryland.—Baltimore College of Dental Surgery, Baltimore; Johns Hopkins University, Baltimore; Maryland State College of Agriculture, College Park; University of Maryland, Baltimore; Mount St. Mary's College, Emmettsburg; St. John College, Annapolis; Washington College, Chestertown; Western Maryland College, Westminster.

Massachusetts.—Amherst College, Amherst; Assumption College, Worcester; Boston College, Chestnut Hill; Boston University, Boston; Clark College, Worcester; College of the Holy Cross, Worcester; Harvard University, Cambridge; International Y. M. C. A. College, Springfield; Lowell Textile School, Lowell; Massachusetts Agricultural College, Amherst; Massachusetts Institute of Technology, Cambridge; Northeastern College, Boston; Tufts College, Medford; Wentworth Institute, Boston; Williams College, Williamstown; Worcester Polytechnic Institute, Worcester.

Michigan.—Adrian College, Adrian; Albion College, Albion; Alma College, Alma; Central State Normal School, Mount Pleasant; Detroit College of Medicine and Surgery, Detroit; Detroit Junior College, Detroit; University of Detroit, Detroit; Grand Rapids Junior College, Grand Rapids; Hillsdale College, Hillsdale; Hope College, Holland; Kalamazoo College, Kalamazoo; Michigan Agricultural College, East Lansing; Michigan College of Mines, Houghton; Michigan State Normal College, Ypsilanti; University of Michigan, Ann Arbor; Northern State Normal School, Marquette; Olivet College, Olivet; St. Cyrillus Methodist Seminary, Orchard Lake; Western State Normal School, Kalamazoo.

Minnesota.—Carleton College, Northfield; College of St. Thomas, St. Paul; Gustavus Adolphus College, St. Peter; Hamline University, St. Paul; Macalester College, St. Paul; University of Minnesota, Minneapolis; St. Olaf College, Northfield.

Mississippi.—Meridian College, Meridian; Millsaps College, Jackson; Mississippi Agricultural and Mechanical College, Agricultural College; Mississippi College, Clinton; Mississippi Normal School, Hattiesburg; University of Mississippi, University.

Missouri.—Central College, Fayette; Culver-Stockton College, Canton; Drury College, Springfield; First District State Normal School, Kirksville; Kansas City Dental College, Kansas City; Kansas City Polytechnic, Kansas City; Missouri School of Mines, Rolla; University of Missouri, Columbia; Missouri Valley College, Marshall; Missouri Wesleyan College, Cameron; Park College, Parkville; St. Louis University, St. Louis; State Normal School, Cape Girardeau; State Normal School, Maryville; State Normal College, Springfield; State Normal School, Warrensburg; Tarkio College, Tarkio; Washington University, St. Louis; Western Dental College, Kansas City; Westminster College, Fulton; William Jewel College, Liberty.

Montana.—Montana College of A. and M., Bozeman; Montana State School of Mines, Butte; University of Montana, Missoula; Montana Wesleyan College, Helena; Mount St. Charles College, Helena.

Nebraska.—Bellevue College, Bellevue; Cotner University, Bethany; Creighton University, Omaha; Doane College, Crete; Hastings College, Hastings; Kearney State Normal, Kearney; Nebraska State Normal, Peru; University of Nebraska, Lincoln; Nebraska Wesleyan University, University Place; Wayne Normal School, Wayne; York College, York.

Nevada.—State University of Nevada, Reno.

New Hampshire.—Dartmouth College, Hanover; New Hampshire College of Agricultural and Mechanical, Durham.

New Jersey.—Princeton University, Princeton; Rutgers College, New Brunswick; Stevens Institute of Technology, Hoboken.

New Mexico.—New Mexico College of Agricultural and Mechanical, State College; New Mexico Military Institution, Roswell; University of New Mexico, Albuquerque.

New York.—Alfred University, Alfred; University of Buffalo, Buffalo; Canisius College, Buffalo; Clarkson College of Technology, Potsdam; Colgate University, Hamilton; College of Dental and Oral Surgery of New York, New York City; College of the City of New York, New York City; Columbia University, New York City; Cooper Union Day Technical School, New York City; Cornell University, Ithaca; Fordham University, New York City; Hamilton College, Clinton; Hobart College, Geneva; Manhattan College, New York City, New York College of Dentistry, New York City; New York Homeopathic Medical

College, New York City; New York State College for Teachers, Albany; New York University, New York City; Niagara University, Niagara; Polytechnic Institute of Brooklyn, Brooklyn; Pratt Institute, Brooklyn; Rensselaer Polytechnic Institute, Troy; University of Rochester, Rochester; St. Bonaventure College, St. Bonaventure; St. John's College, Brooklyn; St. Lawrence University, Canton; St. Stephens College, Annandale; Syracuse University, Syracuse; The Long Island College Hospital, Brooklyn; Union University, Schenectady.

North Carolina.—Atlantic Christian College, Wilson; Biddle University (colored), Charlotte; Catawba College, Newton; Davidson College, Davidson; Elon College, Elon; Lenoir College, Hickory; North Carolina State College of Agriculture and Engineering, West Raleigh; University of North Carolina, Chapel Hill; Shaw University (colored), Raleigh; Trinity College, Durham; Wake Forest College, Wake Forest.

North Dakota.—Fargo College, Fargo; Jamestown College, Jamestown; North Dakota Agricultural College, Agricultural College; University of North Dakota, Grand Forks.

Ohio.—Antioch College, Yellow Springs; Ashland College, Ashland; Baldwin-Wallace College, Berea; Capitol University, Columbus; Case School of Applied Science, Cleveland; University of Cincinnati, Cincinnati; Defiance College, Defiance; Denison University, Granville; Eclectic Medical College, Cincinnati; Findlay College, Findlay; Heidelberg University, Tiffin; Hiram College, Hiram; Kenyon College, Gambier; Marietta College, Marietta; Miami University, Oxford; Mount Union College, Alliance; Municipal University of Akron, Akron; Muskingum College, New Concord; Oberlin College, Oberlin; Ohio College of Dental Surgery, Cincinnati; Ohio Northern University, Ada; Ohio State University, Columbus; Ohio University, Athens; Ohio Wesleyan University, Delaware; Otterbein University, Westerville; St. Ignatius College, Cleveland; St. Mary's College, Dayton; St. Xavier College, Cincinnati; Toledo University, Toledo; Western Reserve University, Cleveland, Wilberforce University (colored), Wilberforce; Wittenberg College, Springfield; College of Wooster, Wooster.

Oklahoma.—Central State Normal School, Edmond; East Central Normal School, Ada; Henry Kendall College, Tulsa; North Eastern State Normal School, Tahlequah; Northwestern Normal School, Alva; Oklahoma A. and M. College, Stillwater; University of Oklahoma, Norman; Philips University, Enid; Southeastern State Normal School, Durant; Southwestern Normal School, Weatherford.

Oregon.—North Pacific College of Dentistry, Portland; Oregon Agricultural College, Corvallis; University of Oregon, Eugene; Reed College, Portland; Willamette University, Salem.

Pennsylvania.—Albright College, Myerstown; Allegheny College, Meadville; Carnegie Institute of Technology, Pittsburgh; Bucknell University, Lewisburg; Dickinson College, Carlisle; Drexel Institute, Philadelphia; Duquesne University of the Holy Ghost, Pittsburgh; Franklin and Marshall College, Lancaster; Geneva College, Beaver Falls; Godfrey State Normal School, Millersville; Grove City College, Grove City; Hahnemann Medical College, Philadelphia; Jefferson Medical College, Philadelphia; Lafayette College, Easton; Lebanon Valley College, Annville; Lehigh University, South Bethlehem; Lincoln University (colored), Chester; Mansfield State Normal, Mansfield; Moravian College, Bethlehem; Muhlenberg College, Allentown; Pennsylvania College, Gettysburg; Pennsylvania Military College, Chester; Pennsylvania State College, State College; University of Pennsylvania, Philadelphia; Philadelphia Textile School, Philadelphia; University of Pittsburg, Pittsburgh; St. Joseph's College, Philadelphia State Normal School, East Stroudsburg; State Normal School, Indiana; Susquehanna University, Selinsgrove; Swarthmore College, Swarthmore; Temple University, Philadelphia; Thiel College, Greenville; Ursinus College, Collegeville; Villanova College, Villanova; Washington and Jefferson College, Washington; Waynesburg College, Waynesburg; West Chester State Normal, West Chester; Westminster College, New Wilmington.

Porto Rico.—College of Agriculture and Mechanic Arts, Mayaguez; University of Porto Rico, San Juan.

Rhode Island.—Brown University, Providence; Rhode Island State College, Kingston.

South Carolina.—Clemson Agricultural College, Clemson; College of Charleston, Charleston; Erskine College, Greenville; Furman University, Greenville; Newberry College, Newberry; Presbyterian College of South Carolina, Clinton; South Carolina Medical College, Charleston; University of South Carolina, Columbia; The Citadel, the Military College of South Carolina, Charleston; Wofford College, Spartanburg.

South Dakota.—Dakota Wesleyan University, Mitchell; Huron College, Huron; South Dakota School of Mines, Rapid City; South Dakota State College of A. and M., Brookings; University of South Dakota, Vermilion; Yankton College, Yankton.

Tennessee.—Carson and Newman College, Jefferson City; University of Chattanooga, Chattanooga; Cumberland University, Lebanon; East Tennessee State Normal, Johnson City; Fisk University (colored), Nashville; George Peabody College for Teachers, Nashville; King College, Bristol; Knoxville College (colored), Knoxville; Lincoln Memorial College, Cumberland Gap; Maryville College, Maryville; Meharry Medical College (colored), Nashville; Middle Tennessee State Normal, Murfreesboro; Southwestern Presbyterian University, Clarksville; Tennessee Polytechnic Institute, Cookville; University of Tennessee, Knoxville; Tusculum College, Greenville; Union University, Jackson; University of the South, Sewanee; Vanderbilt University, Nashville; West Tennessee State Normal School, Memphis.

Texas.—Abilene Christian College, Abilene; A. and M. College of Texas, College Station; Alexander College, Jacksonville; Austin College, Sherman; Baylor University, Waco; Bishop College (colored), Marshall; Burleson College, Greenville; Decatur College, Decatur; East Texas State Normal School, Commerce; Howard Payne College, Brownwood; College of Marshall, Marshall; Meridian College, Meridian; North Texas State Normal College, Denton; The Rice Institute, Houston; Sam Houston State Normal Insti-

tute, Huntsville; Simmons College, Abilene; Southern Methodist University, Dallas; Southwest Texas Normal, San Marcos; Southwestern University, Georgetown; Texas Christian University, Fort Worth; Texas Military College, Terrell; University of Texas, Austin; Trinity University, Waxahachie; Wayland College, Plainview; Wesley College, Greenville; West Texas Military Academy, San Antonio; West Texas Normal, Canyon; Wiley University (colored), Marshall.

Utah.—Agricultural College of Utah, Logan; Brigham Young University, Provo; University of Utah, Salt Lake City.

Vermont.—Middlebury College, Middlebury; Norwich University, Northfield; University of Vermont and State Agricultural College, Burlington.

Virginia.—Eastern College, Manassas; Emory and Henry College, Emory; Hampden-Sidney College, Hampden-Sidney; Medical College of Virginia, Richmond; Randolph-Macon College, Ashland; Richmond College, Richmond; Roanoke College, Salem; University of Virginia, Charlottesville; Virginia A. and M. and Polytechnic Institute, Blacksburg; Virginia Christian College, Lynchburg; Virginia Military Institute, Lexington; Virginia Union University (colored), Richmond; Washington and Lee, Lexington, William and Mary College, Williamsburg.

Washington.—College of Puget Sound, Tacoma; Gonzaga University, Spokane; State College of Washington, Pullman; Washington State Normal College, Cheney; University of Washington, Seattle; Whitman College, Walla Walla.

West Virginia.—Bethany College, Bethany; Davis and Elkins College, Elkins; West Virginia Collegiate Institute (colored), Institute; West Virginia Wesleyan College, Buckhannon; University of West Virginia, Morgantown.

Wisconsin.—Beloit College, Beloit; Campion College, Prairie du Chien; Carroll College, Waukesha; La Crosse State Normal School, La Crosse; Lawrence College, Appleton; Marquette University, Milwaukee; Milton College, Milton; Milwaukee State Normal School, Milwaukee; Oshkosh State Normal School, Oshkosh; Racine College, Racine; Ripon College, Ripon; River Falls State Normal School, River Falls; School of Engineering, Milwaukee; State Normal School, Eau Claire; State Normal School, Platteville; State Normal School, Stevens Point; State Normal School, Superior; State Normal School, Whitewater; Stout Institute, Menominee; University of Wisconsin, Madison.

Wyoming.—University of Wyoming, Laramie.

Section B.—Vocational Training of Soldiers.

Alabama.—Alabama Polytechnic Institute, Auburn; University of Alabama, Tuscaloosa; Tuskegee Institute (colored), Tuskegee.

Arkansas.—University of Arkansas, Fayetteville; Branch Normal School (colored), Pine Bluff.

Arizona.—University of Arizona, Tucson.

California.—University of California, Berkeley; Los Angeles State Normal School, Los Angeles. Oakland Technical High School, Oakland; Polytechnical School of Engineering, Oakland.

Connecticut.—Yale University, New Haven.

Colorado.—Colorado College, Colorado Springs; Colorado State Agricultural College, Fort Collins; University of Colorado, Boulder.

Delaware.—Delaware College, Newark.

Drictist of Columbia.—Bliss Electrical School, Washington; Howard University (colored), Washington.

Florida.—University of Florida, Gainesville.

Georgia.—Atlanta University, Atlanta; Georgia School of Technology, Atlanta; University of Georgia, Athens.

Idaho.—Idaho School of Technology, Pocatello; University of Idaho, Moscow.

Illinois.—Armour Institute of Technology, Chicago; Bradley Polytechnic Institute, Peoria; Chicago Board of Education (Armour), Chicago; Chicago Board of Education (Brennan), Chicago; Chicago Board of Education (Harrison), Chicago; Chicago Board of Education (Old S. Div. H. S.), Chicago; Chicago Board of Trade, Chicago; University of Chicago, Chicago; Lewis Institute, Chicago; Loyal Order of Moose, Mooseheart; Northwestern University, Evanston.

Indiana.—Indiana University, Bloomington; Indianapolis Chamber of Commerce, No. 1, Indianapolis; Indianapolis Chamber of Commerce, No. 2, Indianapolis; Indianapolis Chamber of Commerce, No. 3, Indianapolis; Indianapolis Chamber of Commerce, No. 4, Indianapolis; Interlaken School, Rolling Prairie; Purdue University, West Lafayette; Richmond Commercial Club, Richmond; Rose Polytechnic Institute, Terre Haute; Valparaiso University, Valparaiso; Warsaw Chamber of Commerce, Warsaw.

Iowa.—Iowa A. and M. College, Ames; University of Iowa, Iowa City.

Kansas.—Fort Hays Normal School, Hays City; Kansas State Agricultural College, Manhattan; University of Kansas, Lawrence; Western University (colored), Quindaro.

Kentucky.—University of Kentucky, Lexington.

Louisiana.—Louisiana University, Baton Rouge; Tulane University, New Orleans.

Maine.—University of Maine, Orono.

Maryland.—Maryland State Agricultural College, College Park.

Massachusetts.—Franklin Union, Boston; Newton School Board, Newton; Springfield Technical H. S., Springfield; Tufts College, Medford; Wentworth Institute, Boston.

Michigan.—Michigan School of Mines, Houghton; Michigan Agricultural College, East Lansing; University of Michigan, Ann Arbor.

Minnesota.—University of Minnesota (Agri.), St. Paul; University of Minnesota, Minneapolis; William Hood Dunwoody Industrial Institute, Minneapolis.

Mississippi.—Mississippi A. and M. College, Starkville.

Missouri.—University of Missouri, Columbia; Rahe Auto School, Kansas City; St. Louis Board of Education, St. Louis; Sweeney Auto School, Kansas City; Washington University, St. Louis.

Montana.—University of Montana, Missoula.

Nebraska.—University of Nebraska, Lincoln.

Nevada.—University of Nevada, Reno.

New Hampshire.—Dartmouth College, Hanover; New Hampshire State College of A. and M., Durham.

New Mexico.—New Mexico A. and M. College, State College.

New York.—Clarkson College of Technology, Potsdam; Columbia University, New York; Cornell University, Ithaca; College of the City of New York, New York; New York State College for Teachers, Albany; New York University, New York; Oswego Normal School, Oswego; Rochester A. and M. Institute, Rochester; Saunders Trade School, Yonkers; Syracuse University, Syracuse; Troy Central High School, Troy.

North Carolina.—Negro A. and T. College, Greensboro.

North Dakota.—North Dakota Agricultural College, Fargo; North Dakota School of Mines, Grand Forks

Ohio.—Cincinnati Board of Education, Cincinnati; University of Cincinnati, Cincinnati; Combined Normal and Ind. (colored), Wilberforce; Municipal University of Akron, Akron; Ohio Mechanics Institute, Cincinnati; Ohio State University, Columbus; Toledo University, Toledo.

Oklahoma.—University of Oklahoma, Norman.

Oregon.—Benson Polytechnic Institute, Portland; Oregon State Agricultural College, Corvallis.

Pennsylvania.—Bowman Technical School, Lancaster; Carnegie Institute of Technology, Pittsburgh; Erie School Board, Erie; Lafayette College, Easton; Lehigh University, South Bethlehem; Pennsylvania State College, State College; University of Pittsburgh, Pittsburgh; Polish National Alliance College, Cambridge Springs.

South Carolina.—Clemson Agricultural College, Clemson; South Carolina State A. and M. College (colored), Orangeburg; University of South Carolina, Columbia.

South Dakota.—South Dakota State A. and M. College, Brookings; South Dakota School of Mines, Rapid City; University of South Dakota, Vermillion.

Tennessee.—University of Tennessee, Knoxville.

Texas.—Texas A. and M. College, College Station; University of Texas, Austin.

Utah.—Utah Agricultural College, Logan; University of Utah, Salt Lake City.

Vermont.—University of Vermont, Burlington.

Virginia.—Hampton Institute (colored), Hampton; Richmond City School Board, Richmond; University of Virginia, Charlottesville.

Washington.—Modern Auto School, Spokane; Washington State College, Pullman.

Wisconsin.—Beloit College, Beloit; University of Wisconsin, Madison.

West Virginia.—University of West Virginia, Morgantown.

Naval Sections.

Alabama.—University of Alabama, University; Alabama Polytechnic Institute, Auburn.

California.—University of California, Berkeley; Leland Stanford Junior University, Stanford University; University of Southern California, Los Angeles.

Colorado.—University of Colorado, Boulder; University of Denver, Denver.

Connecticut.—Yale University, New Haven.

District of Columbia.—Georgetown University, Washington; George Washington University, Washington.

Florida.—University of Florida, Gainesville.

Georgia.—Emory University, Atlanta; Georgia School of Technology, Atlanta; University of Georgia, Athens.

Illinois.—Armour Institute of Technology, Chicago; University of Chicago, Chicago; University of Illinois, Urbana; Northwestern University, Evanston.

Indiana.—Indiana State University, Bloomington; University of Notre Dame, Notre Dame; Purdue University, Lafayette.

Iowa.—Iowa State College of A. and M. Arts, Ames; University of Iowa, Iowa City.

Kansas.—University of Kansas, Lawrence.

Kentucky.—State University of Kentucky, Lexington.

Louisiana.—Louisiana State University, Baton Rouge; Tulane University, New Orleans.

Maine.—Bowdoin College, Brunswick; University of Maine, Orono.

Maryland.—Johns Hopkins University, Baltimore.

Massachusetts.—Amherst College, Amherst; Boston University, Boston; College of the Holy Cross, Worcester; Harvard University, Cambridge; Massachusetts Institute of Technology, Cambridge; Tufts College, Medford; Williams College, Williamstown; Worcester Polytechnic Institute, Worcester.

Michigan.—University of Detroit, Detroit; Michigan Agricultural College, East Lansing; University of Michigan, Ann Arbor.

Minnesota.—University of Minnesota, Minneapolis.

Mississippi.—Mississippi A. and M. College, Starkville.

Missouri.—University of Missouri, Columbia; St. Louis University, St. Louis; Washington University, St. Louis.

Nebraska.—University of Nebraska, Lincoln.

New Hampshire.—Dartmouth College, Hanover; New Hampshire College, Durham.

New Jersey.—Princeton University, Princeton; Stevens Institute of Technology, Hoboken.

New York.—University of Buffalo, Buffalo; Colgate University, Hamilton; College of the City of New York, New York City; Columbia University, New York; Cornell University, Ithaca; Fordham University, New York; New York University, New York; Pratt Institute, Brooklyn; Rensselaer Polytechnic Institute, Troy; Syracuse University, Syracuse; Webb's Academy, Fordham Heights, New York City.

North Carolina.—North Carolina State College of Agriculture and Engineering, West Raleigh; The University of North Carolina, Chapel Hill.

Ohio.—Case School of Applied Science, Cleveland; University of Cincinnati, Cincinnati; Ohio Northern University, Ada; Ohio University, Athens; Ohio State University, Columbus; Western Reserve University, Cleveland.

Oklahoma.—University of Oklahoma, Norman.

Oregon.—Oregon Agricultural College, Corvallis; University of Oregon, Eugene.

Pennsylvania.—Carnegie Institute of Technology, Pittsburgh; Lafayette College, Easton; Lehigh University, S. Bethlehem; Pennsylvania State College, State College; University of Pennsylvania, Philadelphia; University of Pittsburgh, Pittsburgh.

Rhode Island.—Brown University, Providence.

South Carolina.—Clemson College, Clemson.

Tennessee.—University of Tennessee, Knoxville.

Texas.—Baylor University, Waco; Texas A. and M. College, College Station; University of Texas, Austin.

Vermont.—University of Vermont, Burlington.

Virginia.—Virginia Polytechnic Institute, Blacksburg; University of Virginia, University.

West Virginia.—West Virginia University, Morgantown.

Washington.—Washington State College, Pullman; University of Washington, Seattle.

Wisconsin.—Marquette University, Milwaukee; University of Wisconsin, Madison.

Marine Sections.

Cornell University, Ithaca, N. Y.; Harvard College, Cambridge, Mass.; Georgia School of Technology, Atlanta, Ga.; University of Kansas, Lawrence, Kans.; Leland Stanford Junior University, Palo Alto, Cal.; University of Minnesota, Minneapolis, Minn.; University of North Carolina, Chapel Hill; University of Texas, Austin, Tex.; Virginia Military Institute, Lexington, Va.; University of Washington, Seattle, Wash.; University of Wisconsin, Madison, Wis.; Yale University, New Haven, Conn.

18. LIST OF MEDICAL SCHOOLS AUTHORIZED FOR STUDENT ARMY TRAINING CORPS UNITS, OCTOBER 15, 1918.

Alabama.—University of Alabama, School of Medicine, Mobile.

Arkansas.—University of Arkansas, Medical Department, Little Rock.

California.—University of Southern California, School of Medicine, Los Angeles; Leland Stanford Junior University, School of Medicine, San Francisco; University of California, Medical School, San Francisco.

Colorado.—University of Colorado, School of Medicine, Denver.

Connecticut.—Yale University, School of Medicine, New Haven.

District of Columbia.—Georgetown University, School of Medicine, Washington; George Washington University, Medical School, Washington; Howard University, School of Medicine, Washington.

Georgia.—Emory University, School of Medicine, Atlanta; University of Georgia, Medical Department, Augusta.

Illinois.—Hahnemann Medical College and Hospital, Chicago; Loyola University, School of Medicine, Chicago; Northwestern University, Medical School, Chicago; Rush Medical College, Chicago; University of Illinois, College of Medicine, Chicago.

Indiana.—Indiana University, School of Medicine, Indianapolis.

Iowa.—State University of Iowa, College of Medicine, Iowa City; State University of Iowa, College of Homoepathic Medicine, Iowa City.

Kansas.—University of Kansas, School of Medicine, Rosedale.

Kentucky.—University of Louisville, Medical Department, Louisville.

Louisiana.—Tulane University, School of Medicine, New Orleans.

Maine.—Bowdoin Medical School, Brunswick-Portland.

Maryland.—Johns Hopkins University, Medical Department, Baltimore; University of Maryland, School of Medicine, Baltimore.

Massachusetts.—Boston University, School of Medicine, Boston; Medical School of Harvard University, Boston; Tufts College, Medical School, Boston.

Michigan.—University of Michigan, Medical School, Ann Arbor; University of Michigan, Homeopathic Medical School, Ann Arbor; Detroit College of Medicine and Surgery, Detroit.

Minnesota.—University of Minnesota, Medical School, Minneapolis.

Mississippi.—University of Mississippi, School of Medicine, Oxford.

Missouri.—University of Missouri, School of Medicine, Columbia; St. Louis University, School of Medicine, St. Louis; Washington University, Medical School, St. Louis.

Nebraska.—Creighton Medical College, Omaha; University of Nebraska, College of Medicine, Omaha.

New Hampshire.—Dartmouth Medical School, Hanover.

New York.—Albany Medical College, Albany; University of Buffalo, Department of Medicine, Buffalo; Columbia University, College of Physicians and Surgeons, New York City; Cornell University, Medical College, New York City; Fordham University, School of Medicine, New York City; New York Homeopathic Medical College, New York City; University and Bellevue Hospital Medical College, New York City; Syracuse University, College of Medicine, Syracuse.

North Carolina.—University of North Carolina, School of Medicine, Chapel Hill; Wake Forest College, School of Medicine, Wake Forest.

North Dakota.—University of North Dakota, School of Medicine, Grand Forks.

Ohio.—University of Cincinnati, College of Medicine, Cincinnati; Western Reserve University, School of Medicine, Cleveland; Ohio State University, College of Medicine, Columbus; Ohio State University, College of Homeopathic Medicine, Columbus.

Oklahoma.—University of Oklahoma, School of Medicine, Norman-Oklahoma City.

Oregon.—University of Oregon, Medical School, Portland.

Pennsylvania.—Hahnemann Medical College and Hospital, Philadelphia; Jefferson Medical College of Philadelphia; Temple University, Department of Medicine, Philadelphia; University of Pennsylvania, School of Medicine, Philadelphia; University of Pittsburgh, School of Medicine, Pittsburgh.

South Carolina.—Medical College of the State of South Carolina, Charleston.

South Dakota.—University of South Dakota, College of Medicine, Vermilion.

Tennessee.—Meharry Medical College, Nashville; Vanderbilt University, Medical Department, Nashville.

Texas.—Baylor University, College of Medicine, Dallas; University of Texas, Department of Medicine, Galveston.

Utah.—University of Utah, School of Medicine, Salt Lake City.

Vermont.—University of Vermont, College of Medicine, Burlington.

Virginia.—Medical College of Virginia, Richmond; University of Virginia, Department of Medicine, Charlottesville.

West Virginia.—West Virginia University, School of Medicine, Morgantown.

Wisconsin.—University of Wisconsin, Medical School, Madison; Marquette University, School of Medicine, Milwaukee.

19. LIST OF DENTAL SCHOOLS AUTHORIZED FOR STUDENTS' ARMY TRAINING CORPS UNITS, OCTOBER 15, 1918.

California.—University of Southern California, College of Dentistry, Los Angeles (Dr. Lewis A. Ford, Dean); University of California, College of Dentistry, San Francisco (Dr. Guy S. Millberry, Dean); College of Physicians and Surgeons, School of Dentistry, San Francisco (Dr. C. C. Boxton, Dean).

Colorado.—Colorado College of Dental Surgery, Denver (Dr. H. A. Flynn, Dean).

District of Columbia.—Georgetown University, School of Dentistry, Washington (Dr. Shirley W. Bowles, Dean); George Washington University, School of Dentistry, Washington (Dr. Carl J. Mess, Dean); Howard University, School of Dentistry, Washington (Dr. E. A. Bullock, Dean).

Georgia.—Atlanta Southern Dental College, Atlanta (Dr. S. W. Foster, President).

Illinois.—Chicago College of Dental Surgery, Chicago (Dr. Truman W. Brophy, Dean); Northwestern University, Dental School, Chicago (Dr. Arthur D. Black, Dean); University of Illinois, School of Dentistry, Chicago (Dr. F. B. Moorehead, Dean).

Indiana.—Indiana Dental College, Indianapolis (Dr. D. A. House, Dean).

Iowa.—University of Iowa, College of Dentistry, Iowa City (Dr. F. T. Breene, Dean).

Kentucky.—University of Louisville, School of Dentistry, Louisville (Dr. H. B. Tileston, Dean).

Louisiana.—Tulane University, School of Dentistry, New Orleans (Dr. Wallace Wood, Dean); Loyola University, School of Dentistry, New Orleans (Dr. C. V. Vignes, Dean).

Maryland.—University of Maryland, School of Dentistry, Baltimore (Dr. T. O. Heatwole, Dean); Baltimore College of Dental Surgery, Baltimore (Dr. B. H. Smith, Dean).

Massachusetts.—Harvard Dental School, Boston (Dr. Eugene Smith, Dean); Tufts College, Dental School, Boston (Dr. William Rice, Dean).

Michigan.—University of Michigan, School of Dentistry, Ann Arbor (Dr. M. L. Ward, Dean).

Minnesota.—University of Minnesota, School of Dentistry, Minneapolis (Dr. Alfred Owre, Dean).

Missouri.—St. Louis University, School of Dentistry, St. Louis (Dr. J. P. Harper, Dean); Washington University, School of Dentistry, St. Louis (Dr. J. H. Kennerly, Dean); Kansas City Dental College, Kansas City (Dr. C. C. Allen, Dean); Western Dental College, Kansas City (Dr. R. J. Rinehart, Dean).

Nebraska.—University of Nebraska, School of Dentistry, Lincoln (Dr. W. C. Davis, Dean); Creighton University, School of Dentistry, Omaha (Dr. J. C. Hipple, Dean).

New York.—University of Buffalo, Dental Department, New York City (Dr. D. H. Squire, Dean); College of Dental and Oral Surgery, New York City (Dr. William Carr, Dean); New York College of Dentistry, New York City (Dr. A. R. Starr, Dean).

Ohio.—Ohio State University, College of Dentistry, Columbus (Dr. H. M. Seamans, Dean); Western Reserve University, Dental College, Cleveland (Dr. F. M. Casto, Dean); Ohio College of Dental Surgery, Cincinnati (Dr. H. T. Smith, Dean).

Oregon.—North Pacific College of Dentistry, Portland (Dr. H. C. Miller, Dean).

Pennsylvania.—University of Pennsylvania, School of Dentistry, Philadelphia (Dr. Charles R. Turner, Dean); Philadelphia Dental College, Philadelphia (Dr. I. N. Bromell, Dean); University of Pittsburgh, College of Dentistry, Pittsburgh (Dr. H. E. Friessell, Dean).

Tennessee.—Vanderbilt University, School of Dentistry, Nashville (Dr. H. W. Morgan, Dean); Meharry Dental College, Nashville (Dr. G. W. Hubbard, Dean).

Texas.—Baylor University, School of Dentistry, Dallas.

Virginia.—Medical College of Virginia, Dental Department, Richmond (Dr. J. A. C. Hoggan, Dean).

Wisconsin.—Marquette University, School of Dentistry, Milwaukee (Dr. Henry L. Banzhaf, Dean).

20. LIST OF VETERINARY SCHOOLS AUTHORIZED FOR STUDENTS' ARMY TRAINING CORPS UNITS, OCTOBER 15, 1918.

Alabama.—Alabama Polytechnic Institute, School of Veterinary, Auburn.

Colorado.—State Agricultural College, Veterinary School, Fort Collins.

Illinois.—Chicago Veterinary College, Chicago; McKillip Veterinary College, Chicago.

Indiana.—Indiana Veterinary College, Indianapolis.

Iowa.—Iowa State College of Agriculture, School of Veterinary, Ames.

Kansas.—Kansas State Agricultural College, School of Veterinary, Manhattan.

Michigan.—Michigan Agricultural College, School of Veterinary, East Lansing.

New York.—Cornell University, State Veterinary College, Ithaca; University of New York, State Veterinary College, New York City.

North Dakota.—North Dakota Agricultural College, School of Veterinary, Agricultural College.

Ohio.—Ohio State University, College of Veterinary, Columbus.

Pennsylvania.—University of Pennsylvania, School of Veterinary, Philadelphia.

Washington.—Washington State College, Veterinary Department, Pullman.

21. LIST OF PHARMACY SCHOOLS AUTHORIZED FOR STUDENTS' ARMY TRAINING CORPS UNITS, OCTOBER 15, 1918.

California.—University of Southern California, School of Pharmacy, Los Angeles.

Colorado.—University of Colorado, College of Pharmacy, Boulder.

Illinois.—University of Illinois, School of Pharmacy, Chicago.

Indiana.—Purdue University, College of Pharmacy, Lafayette.

Iowa.—University of Iowa, School of Pharmacy, Iowa City.

Kansas.—University of Kansas, School of Pharmacy, Lawrence.

Michigan.—University of Michigan, School of Pharmacy, Ann Arbor.

Minnesota.—University of Minnesota, School of Pharmacy, Minneapolis.

Montana.—University of Montana, School of Pharmacy, Missoula.

Nebraska.—University of Nebraska, School of Pharmacy, Lincoln.

New York.—Columbia University, School of Pharmacy, New York City; Fordham Univeristy, School of Pharmacy, New York City, N. Y.

North Carolina.—University of North Carolina, School of Pharmacy, Chapel Hill.

North Dakota.—North Dakota Agricultural College, School of Pharmacy, Fargo.

Ohio.—Ohio State University, School of Pharmacy, Columbus; Western Reserve University, School of Pharmacy, Cleveland.

Oregon.—Oregon Agricultural College, Department of Pharmacy, Corvallis.

Oklahoma.—University of Oklahoma, School of Pharmacy, Norman.

South Carolina.—South Carolina Medical College, School of Pharmacy, Charleston.

South Dakota.—South Dakota State College, Department of Pharmacy, Brookings.

Tennessee.—Vanderbilt University, School of Pharmacy, Nashville.

Virginia.—Medical College of Virginia, School of Pharmacy, Richmond.

Washington.—Washington State College, Pharmacy Department, Pullman; University of Washington, College of Pharmacy, Seattle.

Wisconsin.—University of Wisconsin, Course in Pharmacy, Madison.

21. Philippine Government. (See pp. 39, 64, 87, 137, 139, 340.

22. Porto Rico Government. (See pp. 39, 65, 129, 137, 141, 246.

IV.—Department of the Navy: Naval Educational Activities.

1. United States Naval Academy of the United States, Annapolis, Md.
2. Camp schools and other training activities.

FIRST NAVAL DISTRICT.

Portsmouth, N. H.
- *Navy Yard Camp* (yard and district forces, general training).
- *Old Hospital.*

Boston, Mass.
- *Receiving Ship* (Commonwealth Pier): Commissary Schools; Sub. R. S. for Engineering Material; Steam Engine School (Wentworth Institute); Gas Engine School (Franklin Union).
- *Bumkin Island:* Training Camp (general training and armed guard).
- *Deer Island:* Disciplinary barracks. General training.
- *Massachusetts Institute of Technology:* Aviation Ground School.
- *Harvard University:* Officer-Material School; United States Naval Radio School.
- *Communication office:* Communication Officers' School.

Hingham, Mass.
- *Training Camp:* Hospital Corps School.

Quincy, Mass.
- *Fore River Shipbuilding Co.:* Fuel Oil School.

Readville, Mass.
- *Blue Hill Observatory:* Aerographers' School.

Wakefield, Mass.
- *U. S. Navy Rifle Range.*

SECOND NAVAL DISTRICT.

Newport, R. I.
- *U. S. Naval Training Station:* Yeoman's School; Firemen's School; Buglers' School; Musicians' School; Gunners' Mates' Class (P. O. School); Quartermasters' Class (P. O. School); Coxswains' Class (P. O. School); Radio Class (Signal School); Signal Class (Signal School); Reserve Radio School; Hospital Corps School; Commissary Schools (Bakers, Cooks, Commissary Stewards).
- *Cloyne School House:* Officer-Material School, second district.
- *Torpedo Station:* Seaman Gunners' School; Bluejacket Guard; Officers' Torpedo Training School Deep-Sea Diving School.

New London, Conn.
- *Submarine Base:* Officers' Submarine School, Enlisted Men's Submarine School, Submarine Tender School; Gyro-compass School.
- *Naval District Base* (District Base Force; Sub Chaser Force; Experimental Laboratory); Listeners' School; Diving School (Salvage); Radio-Telephone School.

THIRD NAVAL DISTRICT.

New York City, N. Y.
- *Columbia University* (men are quartered on U. S. S. *Granite State*): U. S. Navy Gas Engine School (Aviation); U. S. Navy Gas Engine School (Sub Chaser).
- *126 East Fifty-ninth Street:* Cooks' School.
- *Manhattan Bridge Plaza, Brooklyn* (Sperry Gyroscope Co.): Gyro-compass School; Sperry Fire-Control School.
- *Pelham Bay Training Camp.*
- *Officer-Material School.*
- *Signal Officer School.*
- *Officer-Material School, N. A. R. (Deck).*
- *Officer-Material School, N. A. R. (Engineer).*
- *Quartermaster School.*
- *Radio School.*
- *Winchmen's School (Cargo).*
- *Winchmen's School (Kite Balloon).*
- *Cooks' School.*
- *Radio Direction-Finder School.*
- *District Communication Office:* Communication Officers' School.

Hoboken, N. J.
- *Stevens Institute of Technology:* Officer-Material School, N. A. R. (Engineer).

Jersey City, N. J.
- *Davis-Bournonville Co.:* Oxy-acetylene Welders' School. (N. B. This school is administered as part of 4th dist.)

Keyport, N. J.
- *Aeromarine Plane & Motor Co.:* Carpenters' Mates School (Aviation).

Bensonhurst, L. I.
- *Section Base:* Quartermasters' School (Signal); Radio School; Diving School.

Bay Shore, L. I.

U. S. Naval Air Station: Aviation Mechanics' School; Aviation Flight School.

Rockaway Beach, L. I.
U. S. Naval Air Station: Hydrogen Engineers' School.

Utica, N. Y.
Savage Arms Corporation: Lewis Machine Gun School.

FOURTH NAVAL DISTRICT.

Princeton, N. J.
Princeton University: Paymasters' School.

Philadelphia, Pa.
Navy Yard: Receiving Ship; Quartermasters' School (Aviation); Fuel-oil School.
U. S. Naval Home: Cooks' School; Navigation School.
Parkway Bldg., Broad & Cherry Streets: Radio School.
University of Pennsylvania: Officer-Material School, fourth district; Navigation School.

Cape May, N. J.
Naval Training Camp (Wissahickon Barracks): Coxswains' School; Gunners' Mates' School; Hospital Corps School; Quartermasters' School; Signal School; Yeoman's School.
Section Base: Quartermasters' School; Coxswains' School; Elementary Gas Engine School (M. B.); "Standard" Gas Engine School (M. B.); Gunners' Mates' School; Artificers' School; Seamen's School.

FIFTH NAVAL DISTRICT.

Annapolis, Md.
U. S. Naval Academy: Reserve Officers' School.

Washington, D. C.
Navy Yard: Optical Repair School, Seamen Gunners' School.
Division of Operations, Navy Department: Communication Officers' School.

Radio, Va.
United States Naval Radio Station: Radio School (High Power).

Norfolk, Va.
St. Helena: (Receiving Ship), Artificers' School.
Hotels and Bakeries: Cooks' Schools.

Hampton Roads, Va.
Naval Operating Base: Naval Training Station, Officer-Material School (Fifth District), Electrical School (General), Quartermasters' School (Aviation), Carpenters' Mates' School (Aviation), Coxwains' School, Quartermasters' School, Signal School, Musicians' School.

SIXTH NAVAL DISTRICT.

Charleston, S. C.
U. S. S. Hartford.
Navy Yard: Receiving Ship, Machinists' Mates' School, Coppersmiths' School, Motor Boat Operators' School, Enginemen's School.

Mount Pleasant, S. C.
Navy Rifle Range.
Radio School.
Hospital Corps School.

SEVENTH NAVAL DISTRICT.

Miami, Fla.
United States Naval Air Station: Aviation Photographers' School.

Key West, Fla.
Naval Training Camp.

EIGHTH NAVAL DISTRICT.

Pensacola, Fla.
Naval Air Station: Aviation Instrument Makers' School, Quartermasters' School (Aviation), Carpenters' Mates' School (Aviation), Photographers' School, Machinists' Mates' School (Aviation).

New Orleans, La.
Navy Yard Station: Preparatory Officer-Material School, Ensigns' School, Quartermasters' School (Signal), Armed Guards' School, Mine Unit, Gas Engine School.

West End Park, La.
Training Camp.

Guilford, Miss.
Training Camp.

NINTH, TENTH, AND ELEVENTH NAVAL DISTRICTS.

Great Lakes, Ill.
Naval Training Station: Officer-Material School, Ninth District, Musicians' School, Gunners' School, Armed Guards' School, Coxswains' School, Quartermasters' School, Yeomen's School, Signal School, Rifle Range, Machinists' Mates' School (Aviation), Radio School, Hospital Corps School, Cooks' and Bakers' School, Public Works Regiment, Firemen's School, Armorers' School (Aviation, enlisted men), Armorers' School (Aviation, student officers).

Minneapolis, Minn.

Dunwoody Naval Training Schools: Quartermasters' School (Aviation), Carpenters' Mates' School (Aviation), Cooks' School, Bakers' School, Radio School, Coppersmiths' School, Machinists' Mates' School, Ground School, Machinists' Mates' School.

University of Minnesota: Hospital Corps School.

Detroit, Mich.

Packard Motor Car Co.: Liberty Engine School, Draftsmen's School (Aviation).

Ford Plant for "Eagles": Naval Training Camp.

Cleveland, Ohio.

Assistant Supervisor, N. A. R.: Petty Officers' School.

Akron, Ohio.

Goodyear Tire & Rubber Co.: Kite Balloon School, Quartermasters' School (Aviation).

Buffalo, N. Y.

Curtis Aeroplane Motor Corporation: Carpenters' Mates' School (Aviation), Coppersmiths' School (Aviation), Blacksmiths' School (Aviation), Shipfitters' School (Aviation), Quartermasters' School (Aviation).

TWELFTH NAVAL DISTRICT.

San Francisco, Cal.

Navy Yard, Mare Island: Receiving Ship, Officer-Material School, Electrical School (G), Electrical School (R), Preparatory Radio School, Signal School, Petty Officers' School, Blacksmiths' School, Shipfitters' School, Carpenters' Mates' or Shipwrights' School, Painters' School, Molders' School, Pattern-makers' School, Fuel Oil School.

Naval Training Station (Goat Island): Radio School, Signal School, Yeomen's School, Machinists' Mates' School, Hospital Corps School, Cooks' School, Bakers' School, Gunners' Mates' School, Musicians' School, Reserve Officers' School, Coxswains' School, Commissary Stewards' School, Firemen's School, Quartermasters' School.

San Diego, Cal.

Naval Training Camp: Radio School.

Naval Air Station: Machinists' Mates' School (Aviation), Quartermasters' School (Aviation).

Section Base: Officer-Material School.

San Pedro, Cal.

Naval Training Camp: Officer-Material School, Armed Guards' School.

Submarine Base.

THIRTEENTH NAVAL DISTRICT.

Bremerton, Wash.

Navy Yard, Puget Sound: Receiving ship, Navigation School, Gas Engine School, Listeners' School, Coxswains' School, Armed Guards' School, Gunners' Mates' School, Quartermasters' School.

Seattle, Wash.

Naval Training Camp (University of Washington): Officer-Material School (Thirteenth District), Radio School, Preliminary War Deck School, Aviation Ground School, Armed Guard School.

Municipal Electric Light Co.: Firemen's School (Fuel Oil), Keyport, Wash.

Pacific Coast Torpedo Station: Torpedo Class.

3. United States Coast Guard: Coast Guard Academy, New London, Conn.[1]

In times of peace the Coast Guard operates under the Treasury Department. In times of war or when the President so directs it operates as a part of the Navy, subject to the orders of the Secretary of the Navy.

4. Naval Medical School, Washington, D. C.:

(*a*) Navy Nurse Corps.

(*b*) Naval Hospital Corps Schools: (a) Naval Training Station, Newport, R. I.; (b) Naval Training Station, Great Lakes, Ill.; (c) Naval Training Station, San Francisco, Cal.; (d) Naval Operating Base, Hampton Roads, Va. Subsidiary schools have been established in civilian communities since the war as follows: University of Minnesota, Medical and Dental Schools; Columbia University, New York, N. Y.; Philadelphia College of Pharmacy, Philadelphia, Pa.

[1] By the act of Congress approved January 28, 1915, the Revenue-Cutter Service and the Life-Saving Service were combined into the Coast Guard, and the titles of the former services then became obsolete. All duties previously performed by the Revenue-Cutter Service and the Life-Saving Service are now performed by the Coast Guard. Former revenue cutters and former life-saving stations are now called Coast Guard cutters and Coast Guard stations, respectively. The officers and men of the two services were transferred to corresponding positions in the Coast Guard by the terms of the act.

V.—Department of the Interior: Educational Activities.

1. United States Bureau of Education: Personnel, pages 5–10; Alaskan schools, pages 35, 40, 43.

2. OFFICE OF INDIAN AFFAIRS: INDIAN SCHOOLS, B. S. GARBER, CHIEF OF DIVISION.

Name of school.	P. O. address.	Superintendent.
ARIZONA.		
Camp Verde superintendency	Camp Verde	Dr. Joe J. Taylor.
Camp Verde (day)	do	
Clarksdale (day)	Clarksdale	
Colorado River superintendency (bdg.)	Parker	A. F. Duclos.
Fort Apache superintendency	White River	Chas. L. Davis.
Fort Apache (bdg.)	Ft. Apache	
Canon (day)	do	
Cibecue (day)	do	
Cibecue (day) (mission)	Cibecue	
East Fork (day)	do	
East Fork (day) (mission)	White River	
Fort Mojave (bdg.) (nonreservation)	Mohave City	Wm. E. Thackrey.
Havasupai (day)	Supai, via Gd. Canyon	C. H. Gensler.
Kaibab (day)	Moccasin	Dr. E. A. Farron.
Leupp superintendency	Leupp	Stephan Janus.
Leupp (bdg.)	do	
Tolchaco (mission)	Tolchaco	
Moqui superintendency	Keams Canon	Leo Crane.
Moqui (not in operation)		
Chimopovy (day)	Toreva	
Hotevilla-Bacabi	Oraibi	
Oraibi (day)	do	
Polacca (day)	Polacca	
Second Mesa (day)	Toreva	
Navajo superintendency	Ft. Defiance	Peter Paquette.
Navajo (bdg.)	Navajo	
Chin Lee (bdg.)	Chin Lee	
Tohatchi (bdg.)	Tohatchi, N. M.	
Cornfields (day)	Cornfields	
Luki Chuki (day)	Via Ft. Defiance	
Ganado (Presbyterian mission)	Ganado	
Rehoboth (Christian Reformed mission)	Gallup, N. M.	
St. Michael's (Catholic)	St. Michaels	
Phoenix (nonreservation) (bdg.)	Phoenix	J. B. Brown.
Pima superintendency	Sacaton	W. F. Haygood.
Pima (bdg.)	do	
Blackwater (day)	Blackwater	
Casa Blanca (day)	Sacaton	
Chiu Chuischu (day)	do	
Cocklebur (day)	do	
Gila Bend (day)	do	
Gila Crossing (day)	Phoenix (16 mi. so.)	
Maricopa (day)	Phoenix (12 mi. so.)	
Quajote (day)		
Santan (day)	Sacaton	
St. Ann's (Guadalupe) (Catholic mission)		
St. John's (Catholic mission)	Phoenix (17 mi. so.)	
Rice Station (bdg.)	Rice	Dr. J. S. Perkins.
Salt River superintendency	Scottsdale	Byron A. Sharp.
Salt River (day)	do	
Lehi (day)	Mesa	
San Carlos superintendency	San Carlos	Jno. J. Terrell.
San Carlos (day)	do	
Bylas (day)	Geronimo	
Rice (Evangelical Lutheran mission)		
San Xavier superintendency	Tucson	Thos. F. McCormick.
San Xavier (day)		
Indian Oasis (day)	Indian Oasis	
Santa Rosa (day)		
Tucson (day)	Tucson	
Lourdes (Catholic mission)		
St. Anthony's (day) (Catholic mission)	Escuela	
San Miguel (Catholic) (day)		
San Solano (Catholic) (day)		
Tucson (Presbyterian mission)	Tucson	
Truxton Canon (bdg.)	Valentine	Chas. D. Wagner.
Western Navajo superintendency	Tuba City	Walter Runke.
Western Navajo (bdg.)	do	
Marsh Pass (bdg.)	Kayenta	
Moencopi (day)	Tuba City	

Name of school.	P. O. address.	Superintendent.
CALIFORNIA.		
Bishop superintendency	Bishop	Ray R. Parrett.
Bishop (day)	do	
Big Pine (day)	Big Pine	
Independence (day)	Independence	
Pine Creek (day)	Round Valley	
Campo (day)	Campo	Dr. Carl B. Boyd.
Fort Bidwell superintendency	Ft. Bidwell	Chas. T. Coggeshall.
Fort Yuma superintendency	Yuma	Loson L. Odle.
Fort Yuma (bdg.)	do	
Cocopah (day)	Somerton	
Yuma Valley (day)	Yuma	
Greenville (nonreservation) (bdg.)	Greenville	Edgar K. Miller.
Hoopa Valley (bdg.)	Hoopa	Jesse B. Mortsolf.
Malki superintendency	Banning	Jas. E. Jenkins.
St. Boniface (Catholic mission)		
Pala superintendency	Pala	Paul T. Hoffman.
Pala (day)	do	
Capitan Grande (day)	Lakeside	
La Jolla (day)	Valley Center	
Rincon (day)	do	
Round Valley superintendency	Covelo	Walter W. McConihe.
Round Valley (day)	do	
Potter Valley (day)		
Pinoliville (day)	Ukiah	
Upper Lake (day)	Upper Lake	
Yokaia	Ukiah	
Sherman Institute (nonreservation) (bdg.)	Riverside	F. M. Conser.
Soboba superintendency	San Jacinto	H. E. Wadsworth.
Mesa Grande (day)	Mesa Grande	
Volcan (day)	Santa Isabel	
Tule River superintendency	Porterville	Frank A. Virtue.
Tule River (day)	do	
Auberry (day)	Auberry	
Burrough (day)	Porterville	
COLORADO.		
Southern Ute superintendency	Ignacio	Ed. E. McKean.
Southern Ute (bdg.)	do	
Allen (day)	Bayfield	
Ute Mountain (day)	Towaoc	Axel Johnson.
IDAHO.		
Coeur d'Alene superintendency	Sorrento	M. D. Colgrove.
Kalispel (day)	Cusick, Wash	
De Smet (Catholic mission)	De Smet	
Kootenai (day)	Bonners Ferry	
Fort Hall superintendency	Fort Hall	H. H. Miller.
Fort Hall (bdg.)	do	
Skull Valley (day)	Iosepa	
Good Shepherd (Episcopal mission)		
Presbyterian mission		
Fort Lapwai superintendency	Lapwai	Dr. Jacob Breid.
Sanatorium and school	do	
St. Joseph's (mission school)	Slickpoo	
IOWA.		
Sac and Fox superintendency	Toledo	Dr. R. L. Russell.
Sanatorium and school	do	
Fox (day)	Tama	
Mesquakie (day)	do	
KANSAS.		
Haskell Inst. (nonreservation; bdg.)	Lawrence	Hervey B. Peairs.
Kickapoo (bdg.)	Horton	Leo S. Bonnin.
MICHIGAN.		
Mackinac superintendency	Baraga	Dr. R. S. Buckland.
Baraga (Holy Name) (Catholic mission)	do	
Harbor Springs (Holy Childhood) (Catholic mission)	Harbor Springs	
Mount Pleasant (nonreservation; bdg.)	Mount Pleasant	R. A. Cochran.
MINNESOTA.		
Cass Lake (bdg.)	Cass Lake	Chas. H. Allender.
Fond du Lac superintendency	Cloquet	Geo. W. Cross.
Fond du Lac (day)	do	
Normantown (day)	Sawyer	
Grand Portage (day)	Grand Portage	M. D. Archiquette.

Name of school.	P. O. address.	Superintendent.
MINNESOTA—continued.		
Leech Lake (bdg.)	Onigum	H. K. Meyer.
Nett Lake (day)	Nett Lake	Nick Conner.
Pipestone superintendency	Pipestone	Frank T. Mann.
Pipestone (nonreservation; bdg.)	do	
Red Lake superintendency	Red Lake	Walter F. Dickens.
Red Lake (bdg.)	do	
Cross Lake (bdg.)	Ponemah	
St. Mary's (Catholic mission)	Red Lake	
Vermilion Lake (bdg.)	Tower	Henry A. Edsall.
White Earth superintendency	White Earth	John H. Hinton.
White Earth (bdg.)	do	
Beaulieu (day)	do	
Elbow Lake (day)	do	
Pine Point (day)	Ponsford	
Round Lake (day)	White Earth	
Twin Lake (day)	do	
St. Benedict's (Catholic mission)	do	
MONTANA.		
Blackfeet superintendency	Browning	Harry C. Power.
Blackfeet (bdg.)	do	
Heart Butte (day)	do	
Old Agency or Badger Creek (day)	Family	
Holy Family (Catholic mission)	Browning	
Crow superintendency	Crow Agency	Calvin H. Asbury.
Crow (bdg.)	do	
Pryor Creek (bdg.)	Pryor	
Black Lodge (Am. Missionary Soc.)		
Lodge Grass (Baptist bdg.)	Lodgegrass	
Reno (Am. Missionary Soc.)	do	
St. Ann's (Catholic mission)	do	
St. Xavier (Catholic mission)	St. Xavier	
Wyola (Baptist)	Wyola	
Flathead superintendency	Dixon	Theodore Sharp.
St. Ignatius (Catholic mission)	St. Ignatius	
Fort Belknap superintendency	Harlem	Alfred H. Symons.
Fort Belknap (bdg.)	do	
Lodge Pole (day)	Lodge Pole	
St. Paul's (Catholic mission)	St. Paul's	
Fort Peck superintendency	Poplar	Eugene D. Mossman.
Fort Peck (bdg.)	do	
School No. 1	Culbertson	
School No. 2	Brockton	
School No. 3	Frazer	
Wolf Point (Presbyterian mission)	Wolf Point	
Tongue River superintendency	Lamedeer	J. A. Buntin.
Tongue River (bdg.)	do	
Lamedeer (day)	do	
Birney (day)	Birney	
St. Labre's (Catholic mission)	Ashland	
NEBRASKA.		
Genoa (nonreservation; bdg.)	Genoa	Sam B. Davis.
Santee superintendency.		
Santee Normal Training School (Cong.)	(Under Sisseton superintendency.)	
Winnebago superintendency	Winnebago	C. D. Munroe.
St. Augustine (Catholic mission)		
Winnebago Mission (bdg.)	Winnebago	
All Saints' Mission (day)	do	
NEVADA.		
Carson (nonreservation; bdg.)	Stewart	Jas. B. Royce.
Fallon superintendency	Fallon	Harry M. Carter.
Fallon (day)	do	
Lovelocks (day)	Lovelocks	
Fort McDermitt (day)	McDermitt	F. A. Swayne.
Moapa River (day)	Las Vegas	Dr. L. B. Sandall.
Nevada (bdg.)	Nixon	Jos. D. Oliver.
Walker River (day)	Schurz	Robt. E. Burris.
Western Shoshone superintendency.		
Schools Nos. 1 and 2 (day)	Owyhee	H. D. Lawshe.
NEW MEXICO.		
Albuquerque (nonreservation; bdg.)	Albuquerque	Reuben Parry.
Jicarilla (bdg.)	Dulce	C. E. Farris.
Mescalero (bdg.)	Mescalero	Wm. A. Light.
Pueblo Bonito superintendency	Crownpoint	Saml. F. Stacher.
Pueblo Bonito (bdg.)	do	
Pinedale (day)	do	

Name of school.	P. O. address.	Superintendent.
NEW MEXICO—continued.		
Pueblo superintendency (day).		
Albuquerque	Albuquerque	P. T. Longergan.
Acomita (day)	Acomita	
Encinal (day)	Cubero	
Isleta (day)	Isleta	
Laguna (day)	Laguna	
McCarty's	Acomita	
Mesita (day)	Laguna	
Paguate (day)	do	
Paraje (day)	Casa Blanca	
San Felipe (day)	Algodones	
Seama (day)	Seama	
Bernalillo (Catholic mission) (day)	Bernalillo	
Santa Fe:		
Cochiti (day)	Pena Blanca	
Jemez (day)	Jemez	
Picuris (day)	Penasco	
San Ildefonso (day)	Buckman	
San Juan (day)	Chamita	
Santa Clara (day)	Espanola	
Santa Domingo (day)	Domingo	
Sia (day)	Sandoval	
Taos (day)	Taos	
St. Catherine's Mission (Catholic) (day)		
San Juan superintendency.		
San Juan (bdg.)	Shiprock	Evan W. Estep.
Toadlena (bdg.)	Crozier	
Santa Fe (nonreservation; bdg.)	Santa Fe	Jno. D. De Huff.
Zuni superintendency	Blackrock	Robt. J. Bauman.
Zuni (bdg.)	do	
Christian Reformed Mission	do	
Zuni (day)	do	
NORTH CAROLINA.		
Cherokee superintendency	Cherokee	Jas. E. Henderson.
Cherokee (bdg.)	do	
Big Cove (day)	Stonery	
Birdtown (day)	Cherokee	
Little Snowbird (day)	Andrews	
Snowbird Gap (day)	Robbinsville	
NORTH DAKOTA.		
Bismarck (nonreservation, bdg.)	Bismarck	R. I. Thompson.
Fort Berthold superintendency	Elbowoods	E. W. Jermark.
School No. 1 (day)	Armstrong	
School No. 2 (day)	Independence	
School No. 3 (day)	Shell Creek	
Fort Berthold (Catholic mission)	Elbowoods	
Congregational (Congregational mission)	do	
Fort Totten (bdg.)	Fort Totten	S. A. M. Young.
Standing Rock superintendency.		
Standing Rock (bdg.)	Fort Yates	Jas. B. Kitch.
Martin Kenel (bdg.)	do	
Bullhead (day)	Bullhead	
Cannon Ball (day)	Fort Rice	
Grand River (day)	Little Eagle, S. D.	
Little Oak Creek (day)	do	
Porcupine (day)	Shields	
St. Elizabeth's (Episcopal mission)	Wakpala, S. D.	
Standing Rock Mission	Agency	
Turtle Mountain superintendency	Belcourt	R. C. Craige.
Schools Nos. 1 to 4, inclusive (day)	do	
School No. 5 (day)	Dunseith	
Wahpeton (nonreservation, bdg.)	Wahpeton	P. Carter.
OKLAHOMA.		
Cantonment (bdg.)	Cantonment	R. E. L. Daniel.
Cheyenne and Arapaho superintendency.		
Cheyenne and Arapaho (bdg.)	Concho	W. W. Scott.
Chilocco (nonreservation, bdg.)	Chilocco	O. H. Lipps.
Kiowa superintendency	Anadarko	C. V. Stinchecum.
Anadarko (bdg.)	do	
Ft. Sill (bdg.)	Lawton	
Rainy Mountain (bdg.)	Gotebo	
Riverside (bdg.)	Anadarko	
Osage superintendency	Pawhuska	J. Geo. Wright.
Osage (bdg.)	do	
St. Louis's (Catholic mission)	do	
Otoe (bdg.)	Otoe	Geo. A. Hoyo.
Pawnee (bdg.)	Pawnee	Thos. Ferris.

Name of school.	P. O. address.	Superintendent.
OKLAHOMA—continued.		
Ponca (bdg.)	Whiteagle	Chas. E. Norton.
Red Moon (Seger Supt.) (day)	Hammon	
Seger (bdg.)	Colony	Jesse W. Smith.
Seneca superintendency	Wyandotte	Carl F. Mayer.
Seneca (bdg.)	do	
St. Mary's (Catholic mission)	Baxter Springs, Kans, R. F. D. No. 2.	
Shawnee superintendency	Shawnee	Ira C. Deaver.
Shawnee (bdg.)		
Sacred Heart (St. Benedict's) (Catholic mission)	Sacred Heart	
Sacred Heart (St. Mary's) (Catholic mission)	do	
Five Civilized Tribes.		
Cherokee Nation:		
Cherokee Orphan Training School (bdg.)	Park Hill	H. H. Ransom.
Creek Nation:		
Euchee (bdg.)	Sapulpa	C. L. Batson.
Eufaula (bdg.)	Eufaula	Mrs. G. C. Melton.
Nuyaka (bdg.)	Nuyaka	Jack Brown.
Chickasaw Nation:		
Collins (bldg. burned May 9, 1916; abolished Oct. 12, 1917.)		
El Meta Bond College (private)	Minco	
Choctaw Nation:		
Armstrong Male Academy (bdg.)	Academy	E. A. Porter.
Jones Male Academy (bdg.)	Hartshorne	H. P. Warren.
Tuskahoma Academy (bdg.)	Tuskahoma	Wm. D. Dilbeck.
Wheelock Academy (bdg.)	Millerton	M. R. Foreman.
Old Goodland (nondenominational)	Hugo	
St. Agnes Mission (Catholic)	Antlers	
Chickasaw and Choctaw Nation:		
Murray School of Agriculture (private)	Tishomingo (State School).	
Oklahoma Presbyterian College (mission)	Durant	
St. Agnes Academy (Catholic (mission)	Ardmore	
St. Elizabeth's (Catholic mission)	Purcell	
St. Joseph's (Catholic mission)	Chickasha	
Seminole Nation:		
Mekusukey (bdg.)	Seminole	E. Swengel.
OREGON.		
Klamath superintendency	Klamath Agency	J. M. Johnson.
Klamath (bdg.)	do	
Modoc Point (day)	do	
Schools Nos. 2 and 3 (day)	Beatty, via Agency	
Salem (nonreservation, bdg.)	Chemawa	Harwood Hall.
Umatilla superintendency	Pendleton	E. L. Swartzlander.
St. Andrew's (Kate Drexel) (Catholic mission)	Pendleton	
Warm Springs superintendency	Warm Springs	O. L. Babcock.
Warm Springs (bdg.)	do	
Simnasho (day)	Simnasho	
SOUTH DAKOTA.		
Cheyenne River superintendency	Cheyenne Agency	J. H. McGregor.
Cheyenne River (bdg.)		
Crow Creek superintendency	Crow Creek	H. P. Marble.
Crow Creek (bdg.)		
Immaculate Conception (Catholic)	Stephan	
Flandreau (nonreservation, bdg.)	Flandreau	C. F. Peirce.
Lower Brule (bdg.)	Lower Brule	E. M. Garber.
Pierre (nonreservation, bdg.)	Pierre	C. J. Crandall.
Pine Ridge superintendency[1]	Pine Ridge	H. M. Tidwell.
Pine Ridge (bdg.)		
Holy Rosary (Catholic mission)		
Schools Nos. 1, 4, 5, 6, 7, 9 to 30, inclusive (day)		
Rapid City (nonreservation, bdg.)	Rapid City	J. F. House.
Rosebud superintendency [2]	Rosebud	C. C. Covey.
Rosebud (bdg.)		
St. Mary's (mission bdg.; Episcopal)		
St. Francis (mission bdg.; Catholic)		
White Lake (day)	Rosebud	
White Thunder (not in operation, abolished)		
Wood (day)		
St. Mary's (Episcopal mission)	Mission	
St. Francis's (Catholic mission)	Spring Creek district	
Sisseton (bdg.)	Sisseton	J. L. Suffecool.
Springfield (nonreservation; bdg.)	Springfield	Miss M. V. Gaither.
Yankton (bdg.)	Wagner	A. W. Leech.

[1] See Supp. No. 1.

[2] Supp. No. 2.

Name of school.	P. O. address.	Superintendent.
UTAH.		
Goshute (not in operation)		
Shivwits (day)	Ibapah	Amos R. Frank.
Uintah (bdg.)	Santa Clara	O. Humbargar.
	Fort Duchesne	A. H. Kneale.
WASHINGTON.		
Colville superintendency		
School No. 1 (day)	Nespelem	Fred C. Morgan.
School No. 3 (day)	Corada	
School No. 4 (day)	Nespelem	
School No. 9	Daisy	
Sacred Heart (Catholic mission)	Keller	
St. Mary's (Catholic mission)		
Cushman superintendency		
Cushman (nonreservation; bdg.)	Tacoma	E. H. Hammond.
Chehalis (day)	do	
Jamestown (day)	do	
Port Gamble (day)	Dungeness	
St. George's (Catholic mission)	Port Gamble	
Neah Bay superintendency	Tacoma	
Neah Bay (day)	Neah Bay	Dr. C. L. Woods.
Quileute (day)	do	
Spokane superintendency	Mora	
School No. 1 (day)	Wellpinit	O. C. Upchurch.
School No. 2 (day)	Miles	
School No. 8 (day)	Wellpinit	
Taholah superintendency	Ford	
Taholah (day)	Taholah	Dr. O. O. Benson.
Queets River (day)	do	
Tulalip superintendency	do	
Tulalip (bdg.)	Tulalip	Dr. C. M. Buchanan.
Lummi (day)	do	
Swinomish (day)	Marietta	
Yakima (bdg.)	La Conner	
	Fort Simcoe	Don M. Carr.
WISCONSIN.		
Hayward superintendency		
Hayward (nonreservation, bdg.)	Hayward	H. J. McQuigg.
Lac Courte Oreille (day)	do	
Keshena superintendency	Reserve	
Keshena (bdg.)	Keshena	E. A. Allen.
Neopit (day)	do	
St. Joseph's (Catholic mission)	Neopit	
St. Anthony's (Catholic mission)	Keshena	
Lac du Flambeau (bdg.)	Neopit	
La Pointe superintendency	Lac du Flambeau	J. W. Balmer.
Odanah Mission (Catholic)	Ashland	P. S. Everest.
St. Mary's (Catholic mission)	Odanah	
Oneida superintendency	do	
Oneida (bdg.)	Oneida	Jos. C. Hart.
Adventist Mission	do	
Hobart Mission (Episcopal)	do	
Red Cliff superintendency	do	
Red Cliff (day)	Bayfield, Wis	John W. Dady.
Bayfield (Holy Family) (Catholic mission)	do	
Tomah (nonreservation; bdg.)	do	
	Tomah	L. M. Compton.
WYOMING.		
Shoshone superintendency		
Shoshone (bdg.)	Fort Washakie	E. A. Hutchinson.
Arapaho (day)	do	
St. Stephen's (Catholic mission)	do	
Shoshone (Episcopal mission)	St. Stephen's	
St. Michael's (mission bdg.; Protestant Episcopal)	Wind River	

NOTE.—In the foregoing list, "day" indicates a day school and "bdg." a boarding school.

SUPPLEMENT No. 1.—PINE RIDGE DAY SCHOOLS.

No. 1	Agency.
No. 4	10 miles north of agency on White Clay Creek.
No. 5	20 miles northwest of agency mouth of White Clay Creek.
No. 6	25 miles northwest of agency on White River.
No. 7	15 miles northeast of agency on Wounded Knee Creek.
No. 9	18 miles north-northeast of agency on Wounded Knee Creek.
No. 10	22 miles north-northeast of agency on Wounded Knee Creek.
No. 12	32 miles north of agency on Wounded Knee Creek.
No. 13	35 miles north-northeast of agency on Porcupine Creek.
No. 14	52 miles east of agency on Lake Creek.
No. 15	30 miles north-northeast of agency on Porcupine Creek.
No. 16	25 miles northeast of agency on Porcupine Creek.
No. 17	40 miles northeast of agency on American Horse Creek.
No. 18	45 miles north-northeast of agency on Medicine Root Creek.
No. 19	40 miles northeast of agency on Little Wound Creek.
No. 20	45 miles northeast of agency on No Flesh Creek.
No. 21	50 miles eastnortheast of agency on Corn Creek.
No. 22	65 miles northeast of agency on Bear Creek.
No. 23	60 miles north-northeast of agency on Potato Creek.
No. 24	80 miles northeast of agency on Lone Tree Creek.
No. 25	15 miles northwest of agency on White Clay Creek.
No. 26	30 miles north of agency on White River.
No. 27	6 miles north of agency on White Clay Creek.
No. 28	5 miles east of agency on Wolf Creek.
No. 29	50 miles northeast of agency on Medicine Root Creek.
No. 30	On Porcupine Creek.

SUPPLEMENT NO. 2.—ROSEBUD DAY SCHOOLS.

Blackpipe	30 miles northwest of agency on Blackpipe Creek.
Corn Creek	37 miles northwest of agency at junction of Blackpipe and Corn Creek.
Cut Meat	13 miles northeast of agency on Cut Meat Creek.
He Dog's Camp	18 miles northwest of agency on branch of Cut Meat Creek.
Ironwood	8 miles west of agency.
Little Crow's	40 miles northeast of agency; 60 miles north Valentine, Nebr.; 75 miles southwest Chamberlain, S. Dak.
Milk's Camp	100 miles east of agency on Ponca Creek.
Oak Creek	30 miles northeast of agency; 45 miles north of Valentine, Nebr.
Pine Creek	28 miles northeast of agency on Little White River.
Red Leaf	25 miles northwest of agency.
Rosebud Day	At agency.
Spring Creek	17 miles southwest of agency.
Upper Cut Meat	16 miles northwest of agency on Cut Meat Creek.
Whirlwind Soldier	55 miles northeast of agency on Oak Creek, 4 miles south of White River.
White Lake	Lake View, S. Dak.
Wood	35 miles northeast of agency.

3. Columbia Institution for the Deaf, Washington, D. C., Percival Hall, president.
4. Howard University, Washington, D. C., Stephen M. Newman, A. M., D. D., president.
5. Territory of Hawaii. (See pages 36, 97, 122, 191.)
6. Territory of Alaska. (See pages 35, 40, 43, 190.)

VI.—Department of Agriculture: Educational Activities.

Through the States Relations Service (A. C. True, director) affiliates with the State agricultural colleges and experiment stations, under the acts of Congress granting funds to these institutions for agricultural experiment stations and cooperative extension work in agriculture and home economics, and in carrying out the provisions of acts of Congress making appropriations to this department for farmers' cooperative demonstration work, investigations relating to agricultural schools, farmers' institutes, and home economics and the maintenance of agricultural experiment stations in Alaska, Hawaii, Porto Rico, and Guam.

VII.—Department of Labor: Educational Activities.

A. Bureau of Naturalization, Richard K. Campbell, commissioner; Raymond F. Crist, deputy commissioner. Cooperates with public schools in the education of immigrant adults. The public schools in 1,754 communities have so far "cast their lot with the bureau in a national citizenship-building undertaking."

B. Information and Education Service. (Acts largely as a means for circulating patriotic propaganda in connection with the Labor Department activities, and more specifically, the U. S. Employment Service program):

(1) Education work. Prof. Davis R. Dewey, in charge of critical survey of all publicity work of division.

(2) Industrial plants. F. M. Hawley, in charge of inspirational work in industrial plants.

(3) Periodicals. Mrs. E. C. Taylor, in charge of providing newspapers and magazines with feature stories and other literature in regard to war labor activities.

(4) Speakers' Service: (*a*) To send speakers into the field provided with literature and speeches and general information for presentation to the public through public halls, theaters, etc. (*b*) Movies and correspondence. (*c*) To advertise all United States Employment Service activities, by means of inspirational posters, etc.

C. Training and dilution service, Charles T. Clayton, chief (established to meet the needs created by inducting untrained workers into factories requiring specially trained persons). Its purposes are: (1) To ascertain the best methods used in various plants and industrial establishments for training workers to do specific work; (2) to ascertain needs for such training of workers; (3) to provide information on this subject to the various plants, industrial establishments, and employees; (4) to promote such training wherever it is necessary or desirable; (5) to inspect operation of such training and report thereon; (6) to cooperate with the United States Employment Service in all of this work; (7) to take up problem of dilution if necessary; i. e., to reorganize work so that a large part formerly handled by skilled workmen may be handled by unskilled workmen.

VIII.—Independent Establishments: Educational Activities.

1. Library of Congress, Herbert Putnam, librarian. (While not a lending library, but primarily and essentially a reference library, the Library of Congress maintains an inter-library loan system, by which special service is rendered to scholarship by the lending of books to other libraries for the use of investigators engaged in serious research.)

2. Smithsonian Institution, Charles D. Walcott, secretary:

(*a*) United States National Museum (including the National Gallery of Art), Richard Rathbun, assistant secretary in charge); (*b*) Bureau of American Ethnology, J. Walter Fewkes, chief; (*c*) National Academy of Sciences, Charles D. Walcott, president; (*d*) National Research Council, George E. Hale, chairman; (*e*) American Historical Association.

3. The Panama Canal. (See p. 35.)

4. Civil Service Commission.

5. Federal Board for Vocational Education:[1] Members—David F. Houston, Secretary of Agriculture, chairman; William C. Redfield, Secretary of Commerce; William B. Wilson, Secretary of Labor; P. P. Claxton, Commissioner of Education; James P. Munroe, vice chairman; Charles A. Greathouse; Arthur E. Holder.

Executive staff—C. A. Prosser, director; Layton S. Hawkins, chief of the vocational education division; Charles H. Winslow, chief of the research division; T. B. Kidner, acting chief of the rehabilitation division; Lewis H. Carris, assistant director for industrial education; Josephine T. Berry, assistant director for home economics education; F. G. Nichols, assistant director for commercial education; W. G. Hummel, assistant director for agricultural education; E. Joseph Aronoff, secretary; C. E. Alden, chief clerk; H. F. Dolan, disbursing officer; D. J. Richardson, legal adviser.

Washington office—601 E Street NW.

Regional offices—New York City, room 915, 145 West Forty-fifth Street; Atlanta, Ga., 1227 Candler Building; Indianapolis, Ind., 1012 Merchants Bank Building; Kansas City, Mo., 316 Grand Avenue Temple Building; San Francisco, Cal., 546 Monadnock Building.

6. Council of National Defense: Committee on Labor: Welfare Work Committee: (1) Industrial safety (studying accident prevention, etc.); L. R. Palmer, chairman. (2) Sanitation (covering a wide field of activities in shop, industrial committees and public), Dr. Wm. A. Evans, chairman. (3) Industrial training for the war emergency (studying advisability and methods of training for unskilled workers. Working with but not supplanted by Training and Dilution Service of Department of Labor. See under Vestibule schools). (4) Recreation (studying need for and best methods of introducing recreational activities in communities, etc.), Dr. George J. Fisher, chairman. (5) Public education in health matters (supplementing work of Public Health Service; largely devoted to propaganda work), Dr. A. H. Doty, chairman (6) Standard guides for employers, A. Parker Davis, chairman.

Section on industrial training for the war emergency of the Committee on Welfare Work, H. E. Miles, chairman of section.

Training departments or vestibule schools—

Recording and Computing Machines Co., C. U. Carpenter, C. P., Dayton, Ohio.
Curtiss Aeroplane Corporation, J. W. Russell, Director of Training, Buffalo, N. Y.
Wright-Martin Aircraft Corporation, J. F. Johnson, Director of Training, New Brunswick, N. J.
Wright-Martin Aircraft Corporation, J. F. Johnson, Director of Training, Long Island City, N. Y.
Nordyke & Marmon Company, Charles Baker, Director of Training, Indianapolis, Ind.
Packard Motor Car Company, F. F. Beall, Vice President, Detroit, Mich.

[1] The Federal Board for Vocational Education has been charged with the responsibility of reeducating disabled soldiers and sailors. It is the intention of the board to use the resources of existing institutions and, so far as practicable, to train men in institutions as near as possible to their homes. The board is limited in its work of vocational education to beneficiaries of the war risk insurance act. Men are received for training after they are discharged from the hospitals and from the Army. As rapidly as the War Risk Insurance Bureau furnishes names, the board endeavors to secure training arrangements for those who need education and can profit by it.

Lincoln Motor Company, J. M. Eaton, Assistant to President, Detroit, Mich.
Norton Grinding Company, John C. Spence, Superintendent, Worcester, Mass.
Gillette Safety Razor Company, Ralph E. Thompson, Factory Superintendent, Boston, Mass.
Royal Typewriter Company, Charles B. Cook, Vice President, Hartford, Conn.
Scoville Manufacturing Company, Charles M. Warner, Director of Training, Waterbury, Conn.
Remington Arms Company, Bridgeport, Conn.
Bullard Engineering Company, Bridgeport, Conn.
The H. E. Harris Engineering Company, H. E. Harris, President, Bridgeport, Conn.
Trego Motor Company, E. M. Bixly, Director of Training, New Haven, Conn.
Winchester Repeating Arms Company, L. O. Pethick, Director of Training, New Haven, Conn.
Taft-Peirce Manufacturing Company, Charles K. Gurney, Supervisor, Woonsocket, R. I.
Brown & Sharpe Company, Providence, R. I.
Crompton & Knowles Loom Works, H. E. Blanchard, Director of Training, Worcester, Mass.
American Steel & Wire Company, Charles R. Sturtevant, Worcester, Mass.
Norton Company, Worcester, Mass.
John Bath & Company, Worcester, Mass.
Graton & Knight Company, F. W. Goodrich, General Superintendent, Worcester, Mass.
(Note: The following companies in Worcester have taken over for the summer the Worcester Trade School for the upgrading of their mechanics: Morgan Construction Company, Norton Grinding Company, Norton Company, Leland Gifford Company, Whitcomb Blaisdell Machine Tool Company.)
Blanchard Machine Company, W. W. Blackman, Superintendent, Cambridge, Mass.
E. W. Bliss Company (torpedo factory), H. E. Blanchard, Chairman Committee on Foremen, Brooklyn, N. Y.
Ford Instrument Company, S. L. Smith, Director of Training, New York City.
Pierce-Arrow Company, Daniel B. Webster, Factory School Instructor, Buffalo, N. Y.
King Sewing Machine Company, William D. Dashner, Director of Training, Buffalo, N. Y.
New York Air Brake Company, George W. G. Poole, Director of Training, Watertown, N. Y.
Seneca Falls Manufacturing Company, E. R. Smith, Factory Manager, Seneca Falls, N. Y.
Savage Arms Company, R. H. Wallace, Personnel Superintendent, Utica, N. Y.
Henry Disston & Sons, A. S. Carter, Director of Training, Philadelphia, Pa.
Fayette R. Plumb (Inc.), William D. Plumb, Factory Manager, Philadelphia, Pa.
Hess Bright Manufacturing Company, Philadelphia, Pa.
Roberts Filter Manufacturing Company, Philadelphia, Pa.
Remington Arms Company, Eddystone Plant, Philadelphia, Pa.
Naval Aircraft Factory, League Island, E. J. Schoettle, Director of Training, Philadelphia, Pa.
American International Shipbuilding Company, Hog Island, E. W. Miller, Director of Training, Philadelphia, Pa.
Newton Machine Tool Company, Nicholas P. Lloyd, Philadelphia, Pa.
Warren Webster Company, Mr. Fitts, Manager, Philadelphia, Pa.
L. H. Gilmer Company, Mr. Disston, Employment Manager, Philadelphia, Pa.
Burke Electric Company, Gustave Faure, Director of Training, Erie, Pa.
Bethlehem Steel Company, G. T. Fonda, Bethlehem, Pa.
J. G. Brill Company, R. B. Liddell, General Superintendent, Philadelphia, Pa.
Lanston Monotype Machine Company, Philadelphia, Pa.
Leeds & Northrup Company, W. M. C. Kimber, Vice-President, Philadelphia, Pa.
David Lupton Sons Company, Philadelphia, Pa.
North American Motors Company, George Lees, Secretary and Works Manager, Pottstown, Pa.
Standard Aircraft Corporation, Maurice J. Sullivan, Director of Training, Elizabeth, N. J.
Snead & Company Iron Works, David Clark, Carl Schultz, Jersey City, N. J.
Spicer Manufacturing Company, Thomas C. Vail, Superintendent, Plainfield, N. J.
International Motors Company, L. S. Ayer, Factory Manager, Plainfield, N. J.
Woodbury Bag and Loading Company, H. J. Lamborn, Woodbury, N. J.
Barbour Flax Spinning Company, Robert Barbour, President, Paterson, N. J.
American Bronze Company, Philadelphia, Pa.
American Tool Works Company, Cincinnati, Ohio.
Lodge & Shipley Machine Tool Company, Cincinnati, Ohio.
Cincinnati Milling Machine Company, Frederick A. Geier, President, Cincinnati, Ohio.
Cincinnati Grinder Company, Arthur C. Hoefinghoff, Director of Training, Cincinnati, Ohio.
Cincinnati Planer Company, Cincinnati, Ohio.
Cincinnati Bickford Tool Company, D. C. Klausmeyer, Director of Training, Cincinnati, Ohio.
Oakley Machine Tool Company, Albert A. Thayer, Treasurer, Cincinnati, Ohio.
Buckeye Twist Drill Company, J. F. Meyers, Superintendent, Alliance, Ohio.
Morgan Engineering Company, S. P. Hall, Employment Manager, Alliance, Ohio.
National Cash Register Company, A. C. Lampman, Director of Training, Dayton, Ohio.
Ohmer Fare Register Company, A. J. Haas, Employment Manager, Dayton, Ohio.
The Timken Roller Bearing Company, F. T. Mackay, Employment Manager, Canton, Ohio.
Joseph & Feiss Company, May Thomsen, Employment Department, Cleveland, Ohio.

Mosler Safe Company, P. G. Kette, Hamilton, Ohio.
Sprague Electric Company.
Rome Wire Company, H. T. Dyett, President, Rome, N. Y.
Ford Motor Company, S. S. Marquis, Director of Training, Detroit, Mich.
Long Manufacturing Company, Detroit, Mich.
Studebaker Corporation, F. A. Brenner, Plant Superintendent, Detroit, Mich.
Solvay Process Company, E. R. Maurer, Superintendent of Shops, Detroit, Mich.
Cadillac Motor Car Company, Detroit, Mich.
Morgan & Wright Company, J. H. Mulloy, Detroit, Mich.
Detroit Steel Products Company, R. S. Drummond, Detroit, Mich.
General Aluminum & Brass Manufacturing Company, Detroit, Mich.
Burroughs Adding Machine Company, R. B. Fleming, Supervisor of Employment, Detroit, Mich.
Dodge Brothers, F. J. Heyms, Works Manager, Detroit, Mich.
Detroit Lubricator Company, G. B. Duffield, Superintendent, Detroit, Mich.
Timken Detroit Axle Company, W. L. McKay, Factory Manager, Detroit, Mich.
Steel Products Company, C. W. Miller, General Manager, Cleveland, Ohio.
Stenotype Company, Edward Schildhauer, President, Indianapolis, Ind.
Haskellite Manufacturing Company, E. K. Pritchett, Purchase Manager, Grand Rapids, Mich.
Republic Motor Truck Company, J. W. Wilson, Director of Training, Alma, Mich.
Sparks Withington Company, William Parker, Vice-President, Jackson, Mich.
Illinois Tool Works, J. D. Sherman, Factory Manager, Chicago, Ill.
Union Special Machines Company, H. B. Johnson, Factory Manager, Chicago, Ill.
Thos. A. Edison (Inc.), Orange, N. J.
Western Cartridge Company, J. L. Donnelly, Secretary, East Alton, Ill.
Independent Pneumatic Tool Company, F. B. Hamerly, Works Manager, Aurora, Ill.
Diamond Chain & Manufacturing Company, L. W. Wallace, Indianapolis, Ind.
General Electric Company, E. H. Barnes, Superintendent, Fort Wayne, Ind.
Pawling & Harnischfeger Company, Milwaukee, Wis.
American Optical Company, Royal Parkinson, Employment Manager, Southbridge, Mass.
Yale & Towne Manufacturing Company, Jos. A. Horne, Vice President, A. F. Bardwell, Stamford, Conn.
Gray & Davis (Inc.), T. M. Allen, Assistant General Superintendent, Boston, Mass.
Blanchard Machine Company, Geo. E. Hill, Director of Training, Cambridge, Mass.
Westinghouse Electric Company, East Pittsburgh, Pa.
Carlton Machine Tool Company, Cincinnati, Ohio.
Locomobile Company of America, H. H. Edge, Factory Manager, Bridgeport, Conn.
Willys-Morrow Company, J. E. Morrow, Secretary and General Manager, Elmira, N. Y.
Standard Parts Company, H. E. Clay, Plant Manager, Cleveland, Ohio.
Underwood Typewriter Company, C. D. Rice, Factory Manager, Hartford, Conn.

The following firms in Worcester, Mass., are using the vestibule principle in special efforts at training unskilled men in their shops: The Heald Machine Company; Bradley Car Works; Reed Prentice Company; Sleeper & Hartley (Inc.); Rice Barton & Fales.

National League of Women Workers: National Service Course. Columbia University, New York, N. Y. (Training course for girls' recreational work.)

7. War Industries Board: Employment Management Section, Captain Boyd Fisher, Director. War Emergency Courses in Employment Management, E. D. Jones, Director of Course Materials.

The Government courses on employment management are conducted under the general guidance of a joint committee, composed of representatives of various departments, and under the direct supervision of a staff organized as the Employment Management Section of the War Industries Board.

The instruction is given at leading educational and industrial centers and, for the most part, in cooperation with institutions of higher education under the auspices of—

(1) The War Department—Ordnance Department; Quartermaster General; General Staff, Committee on Education; Adjutant General's Office, Committee on Classification. (2) The Navy Department. (3) The Department of Labor—War Labor Policies Board; United States Employment Service; Woman-in-Industry Service. (4) The War Industries Board. (5) The United States Shipping Board, Emergency Fleet Corporation. (6) Chamber of Commerce of the United States.

In cooperation with:

a. Boston—Harvard University; Massachusetts Institute of Technology; Boston University. *b.* New York—Columbia University; Bureau of Municipal Research. *c.* Rochester—University of Rochester. *d.* Pittsburgh—Carnegie Institute of Technology; University of Pittsburgh. *e.* Seattle, Wash.—University of Washington. *f.* Berkeley, Cal.—University of California. *g.* Cincinnati—University of Cincinnati. *h.* Cleveland—Case School of Applied Science; Chamber of Commerce.

8. United States Shipping Board—Merchant Marine.

(1) *Navigation Schools for Training Deck Officers:* Massachusetts Institute of Technology, Cambridge, Mass., Bradley Jones, Instructor; Council Chamber, City Building, Rockland, Me., Capt. Charles R. Magee, Instructor; Council Chamber, City Hall, Portland, Me., Capt. Frank A. Wilson, Instructor; Pratt Institute, Brooklyn, N. Y., Capt. John Bond, Instructor; Seamen's Church Institute, 25 South Street, New York, N. Y., Capt. Robert Huntington, Instructor; Uttmak's Academy, 8 State Street, New York, N. Y.,

Capt. Fritz Uttmark, Instructor; Dickinson High School, Newark and Palisade Avenue, Jersey City, N. J.; Capt. Alfred B. Wilson, Instructor; Engineering Building, Philadelphia, Pa., Samuel Goodwin Barton, Instructor; Customhouse, Baltimore, Md., J. W. Lindau, Instructor; Central Y. M. C. A. Building, Granby and Freemason Streets, Norfolk, Va., John H. Stansbury, Instructor; Board of Trade Building, Tampa, Fla., Niel Storter, Instructor; Conti and Royal Streets, New Orleans, La., Capt. Ernest E. Bonnar Drake, Instructor; Ferry Building, San Francisco, Cal., Dr. Sturla Einarson, Instructor; Chamber of Commerce, Los Angeles, Cal., Capt. Hugo C. Frerichs, Instructor; University of Washington, Seattle, Wash., J. E. Gould, Instructor; Federal Building, Tacoma, Wash., Prof. Charles D. Shane, Instructor; Portland Railway Light & Power Co. Building, First and Alder Streets, Portland, Oreg., Dr. Arthur R. Williams, Instructor; Federal Building, sixth floor, Chicago, Ill., Dr. Oliver J. Lee, Instructor; Case School of Applied Science, Cleveland, Ohio, Potter G. Petterson, Instructor; 352 Post-Office Building, Detroit, Mich., Donald Wise, Instructor.

(2) *Engineering Schools for Training Engineer Officers:* Massachusetts Institute of Technology, Cambridge, Mass., Prof. Edward F. Miller, Instructor; Dickinson High School, Newark and Palisade Avenue, Jersey City, N. J., L. R. Smith, Instructor; Philadelphia Bourse Building, Philadelphia, Pa., Clinton E. Shaw, Instructor; Johns Hopkins University, Baltimore, Md., William J. Dana, Instructor; Pratt Institute, Brooklyn, N. Y., Samuel S. Edmand, Instructor; Seamen's Church Institute, 25 South Street, New York, N. Y., Capt. Robert Huntington, Instructor; Tulane University of Louisiana, New Orleans, La., Prof. James M. Robert, Instructor; University of California, Berkeley, Cal., D. W. Dickie, Instructor; University of Washington, Seattle, Wash., Prof. Henry D. Suzzallo, Instructor; Case School of Applied Science, Cleveland, Ohio, Prof. Frederick H. Vose, Instructor; Armour Institute of Technology, Chicago, Ill., Prof. George F. Gebhardt, Instructor.

(3) *Institutes for Purpose of Training Deck and Engineer Crews for the Merchant Marine:* (*a*) Training ships in operation under the supervision of Capt. Charles E. Littlefield, Receiving Station, Sea Training Department, U. S. S. B. Recruiting Service, 172 Border Street, East Boston, Mass. S. S. *Calvin Austin*, S. S. *Governor Dingley*, S. S. *Governor Cobb*. (*b*) Training ship under the supervision of Capt. Isaac N. Hibberd, 369 Pine Street, San Francisco, Cal. S. S. *Iris*. (*c*) Training ships under the supervision of William J. Grambs, 860 Stuart Building, Seattle, Wash. S. S. *Chippewa*, S. S. *Iroquois*. (*d*) Training ship under the supervision of Capt. Irving L. Evans, Room 504, Marion Building, 1276 West Third Street, Cleveland, Ohio. S. S. *Missouri*. (*e*) Training ship under the supervision of Capt. Ernest E. B. Drake, Conti and Royal Streets, New Orleans, La. *Mandeville*.

9. United States Shipping Board: Emergency Fleet Corporation, Education and Training Section, Louis E. Reber, Director.

(1) *Shipyards having Training Departments:*[1] American International Corporation, Hog Island, Philadelphia, Pa., E. W. Miller, Director; Atlantic Corporation, Portsmouth, N. H., E. W. Kempton, Director; Baltimore D. D. & S. B. Co., Baltimore, Md., Thos. Holston, Director; Bayles Shipyards, (Inc.), Port Jefferson, Long Island, N. Y., T. G. Hawley, Director; Bethlehem S. B. Corporation, Fore River, Quincy, Mass., O. H. Tomlin, Director; Bethlehem S. B. Corporation, Harlan Plant, Wilmington, Del., G. A. Worn, Director; Bethlehem S. B. Corporation, Sparrows Point Plant, Baltimore, Md., W. T. Butler, Director; Chester S. B. Co., Chester, Pa., J. W. L. Hale, Director; Doullut Williams, New Orleans, La., H. B. Schofield, Director; Downey S. B. Co., New York, N. Y., J. M. Carver, Director; Federal S. B. Co., Hackensack River, N. J., O. Downs, Director; Housatonic S. B. Co., Stratford, Conn., C. D. Wallach, Director; Jahncke S. B. Corporation, New Orleans, La., M. F. Chatellier, Director; Johnson Shipyards Corporation, Mariners Harbor, N. Y., not appointed; Manitowoc S. B. Co., Manitowoc, Wis., Cyrus A. Casey, Director; Maryland S. B. Co., Sollers Point, Md., J. M. Ferguson, Director; McDougall-Duluth Co., Duluth, Minn., W. S. Covey, Director; Merchants S. B. Co., Bristol, Pa., M. C. Miller, Director; Merrill-Stevens S. B. Corporation, Jacksonville Plant, Jacksonville, Fla., C. W. Hesch, Director; Mobile S. B. Co., Mobile, Ala., H. K. Maitland, Director; Moore S. B. Co., Oakland, Cal., Chas. Wentwort Hill, Director; Newburgh Shipyards, (Inc.), Newburgh, N. Y., W. S. Wells, Director; Newport News, S. B. & D. D. Co., Newport News, Va., W. B. Ashe, Director; Pusey & Jones, New Jersey Plant, Gloucester, N. J., H. V. Mason, Director; Pusey & Jones, Pennsylvania Plant, Gloucester, N. J., H. V. Mason, Director; Pusey & Jones, Wilmington, Del., W. W. Spiegelhalter, Director; Saginaw S. B. Co., Saginaw, Mich.; Standard S. B. Co., Shooters Island, Long Island, N. Y., G. B. Spencer, Director; Staten Island S. B. Co., Port Richmond, N. Y., J. H. Davidson, Director; Submarine Boat Corporation, Newark, N. J., H. H. Tukey, Director; Sun S. B. Co., Chester, Pa., Wm. F. Wright, Director; Tampa S. B. & Engr. Co., Tampa, Fla., Max Kreher, Director.

(2) *Shipyards Having Instructors' Training Centers:*[2] American International Corporation, Hog Island, Philadelphia, E. M. Longfield, Director; American S. B. Co., Brunswick Plant, Brunswick, Ga., R. E. Ellis, Director; American S. B. Co., Detroit Plant, Detroit, Mich., (B. L. Affleck),[3] Director; Atlantic

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[1] A Training Department is maintained by a shipyard for the teaching of shipyard crafts to green workmen. The teaching staff of a Training Department is trained under the supervision of the Educational and Training Section, but is paid by the shipyard.

[2] Instructor training centers are maintained for the purpose of teaching skilled workmen how to impart their knowledge to others, and upon completion of their work they become instructors in the training departments at their respective yards. The teaching staff of a training center is composed of the regular staff instructors of the Education and Training Section.

[3] Names of local directors in parentheses indicate the men formerly in charge of centers which have now completed their work.

Corporation., Portsmouth, N. H., W. B. Henry, Director; Doullut Williams, New Orleans, La., E. L. Baird, Director; Downey S. B. Corporation, New York, N. Y., (J. A. Fisher), Director; Federal S. B. Corporation, Hackensack River, N. J., (W. A. Kreider), Director; Groton Iron Works, Groton, Conn., E. W. Beck, Director; Craig S. B. Co., Long Beach, Cal., M. J. Kane, Director; Hanlon D. D. & S. B. Co., Oakland, Cal., F. W. Wetmore, Director; Housatonic S. B. Co. (Inc.), Stratford, Conn., (E. A. Krause), Director; Liberty S. B. Co., Wilmington, N. C., A. F. Dodge, Director; Manitowoc S. B. Co., Manitowoc, Wis., D. E. Garver, Director; McDougall-Duluth Co., Duluth, Minn., (T. F. Fisher), Director; Maryland S. B. Co., Sollers Point, Baltimore, Md., E. D. Dee, Director; Merchants S. B. Corporation Plant, Bristol, Pa., C. A. Burridge, Director; Merrill-Stevens S. B. Corporation Jack Plant, Jacksonville, Fla., H. W. Clarke, Director; Mobile S. B. Co., Mobile, Ala., W. E. Fiske, Director; Moore S. B. Co., Oakland, Cal., H. B. Adams, Director; Newport News S. B. & D. D. Co., Newport News, Va., (C. M. Bennett), Director; Newburgh Shipyards (Inc.), Newburgh, N. Y., M. G. Twichell, Director; Northwest Steel Co., Portland; Oreg., Newton Van Dalsen, Director; Pacific Coast S. B. Co., San Francisco, Cal., N. D. Cook, Director; Pensacola S. B. Co., Pensacola, Fla., W. E. Fiske, Director; Shattuck S. B. Corporation, Piscatauqua River, Portsmouth, N. H., (M. J. Moriarty), Director; Standard S. B. Corporation, Mariners' Harbor, Staten Island, N. Y., (A. W. Dodge), Director; Staten Island S. B. Co., Port Richmond, N. Y., Chas. R. Bennett, Director; Submarine Boat Corporation, Newark, N. J., Jay Fiske, Director; Sun S. B. Co., Chester, Pa., W. A. Krieder, Director; Todd S. B. & Constr. Co., Tacoma, Wash., B. L. Affleck, Director; Union Construction Co., Oakland, Cal., F. W. Alder, Director; Virginia S. B. Co., Alexandria, Va., H. S. Hall, Director; Western Pipe & Steel Co., San Francisco, Cal., P. D. Croney, Director.

10. United States Geographic Board, Andrew Braid, chairman.

11. Commission of Fine Arts, Charles Moore, chairman.

IX.—Principal State School Officers.[1]

States and officers.	Official designation.	Address.
Alabama:		
Spright Dowell	State superintendent of education	Montgomery.
James N. Gunnels	Chief clerk	Do.
R. E. Tidwell	Director of institutes	Do.
J. B. Hobdy	Rural-school agent	Do.
J. L. Sibley	do	Do.
John B. Clark	Secretary State board of teachers' examiners	Do.
J. S. Thomas	High-school inspector	University.
W. C. Blasingame	do	Auburn.
Alaska:		
Lester D. Henderson	Commissioner of education	Juneau.
Arizona:		
C. O. Case	State superintendent of public instruction	Phoenix.
Frank Dykes	Assistant superintendent	Do.
I. Colodny	State director of vocational education	Do.
Arkansas:		
J. L. Bond	State superintendent of public instruction	Little Rock.
E. H. Shinn	Deputy	Do.
N. M. Whaley	Assistant deputy	Do.
A. B. Hill	Supervisor of secondary schools	Do.
J. A. Presson	State agent, rural schools for Negroes	Do.
California:		
Will C. Wood	Superintendent of public instruction	Sacramento.
M. G. Hyatt	Deputy superintendent	Do.
	Assistant superintendent and commissioner of secondary schools.	Do.
Margaret Schallenberger McNaught.	Assistant superintendent and commissioner of elementary schools.	Do.
Edwin R. Snyder	Assistant superintendent and commissioner of vocational and industrial education.	Do.
Canal Zone:		
A. R. Lang	Superintendent of schools	Balboa Heights.
F. X. Karrer	Supervisor of grades	Do.
Alice Alexander	do	Do.
Colorado:		
Mrs. Mary C. C. Bradford	State superintendent of public instruction	Denver.
Alice B. Clark	Deputy State superintendent	Do.
Connecticut:		
Charles D. Hine	Secretary of State board of education	Hartford.
H. C. Morrison	Assistant secretary State board of education	Do.
Morton Snyder	High-school inspector	Do.
F. J. Trinder	Trade-school supervisor	New Britain.
Delaware:		
A. R. Spaid	State commissioner of education	Dover
L. C. Armstrong	State supervisor of agriculture	Do.
District of Columbia:		
E. L. Thurston	Superintendent of schools	Washington.
S. E. Kramer	Assistant superintendent	Do.
R. C. Bruce	do	Do.

[1] For other officers of State vocational boards see pp. 149–172.

IX.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
Florida:		
W. N. Sheats	State superintendent of public instruction	Tallahassee.
R. L. Turner	State inspector of rural schools	Inverness.
Shelton Phillips	do	Williston.
W. S. Cawthon	State high-school inspector	Gainesville.
Georgia:		
M. L. Brittain	State superintendent of schools	Atlanta.
Miss C. S. Parrish	State supervisor of rural schools (North Georgia)	Do.
F. E. Land	State supervisor of rural schools (South Georgia)	Macon.
J. O. Martin	State supervisor of rural schools (Middle Georgia)	Covington.
M. L. Duggan	Rural-school agent	Atlanta.
Joseph S. Stewart	State high-school inspector (University of Georgia)	Athens.
J. W. Stephens	State school auditor	Atlanta.
George D. Godard	Special supervisor (for Negroes)	Milner.
Hawaii:		
Henry W. Kinney	Superintendent of public instruction	Honolulu.
Idaho:		
Ethel E. Redfield	State superintendent of public instruction	Boise.
Enoch A. Bryan	Commissioner of education	Do.
Illinois:		
Francis G. Blair	State superintendent of public instruction	Springfield.
John Calvin Hanna	High-school inspector	Do.
U. J. Hoffman	State supervisor of country and village schools	Do.
W. S. Booth	do	Do.
Indiana:		
Horace Ellis (Linnaeus H. Hines, after March 15).	State superintendent of public instruction	Indianapolis.
Benjamin J. Burris	Assistant superintendent	Do.
Robert K. Devricks	Deputy	Do.
J. G. Collicott	Director of vocational education	Do.
Z. M. Smith	Supervisor of agricultural education	Do.
Bertha Latta	Assistant in vocational education	Do.
Oscar H. Williams	High-school inspector	Do.
Fred Gladden	Clerk State board of education	Do.
Bert Morgan	Clerk State Teachers' Retirement Fund Board	Do.
Iowa:		
A. M. Deyoe (P. E. McClennahan, after July 1, 1919).	State superintendent of public instruction	Des Moines.
F. D. Joseph	Deputy	Do.
H. C. Hollingsworth	Chief clerk	Do.
M. R. Fayram	Inspector normal training in high schools	Do.
J. A. Woodruff	Inspector rural and consolidated schools	Do.
F. A. Welch	Inspector graded and high schools	Do.
B. W. Hoadley	do	Do.
Kansas:		
Lizzie Wooster	State superintendent of public instruction	Topeka.
C. E. St. John	Assistant superintendent	Do.
L. D. Whittemore	Secretary State board of education	Do.
C. C. Brown	High-school supervisor	Do.
O. B. Seyster	do	Do.
Julia M. Stone	Rural-school supervisor	Do.
J. A. Shoemaker	do	Do.
W. S. Sneder	Chief clerk	Do.
Kentucky:		
V. O. Gilbert	State superintendent of public instruction	Frankfort.
A. J. Jolly	Assistant superintendent	Do.
Paul F. Meagher	Chief clerk	Do.
M. F. Pogue	School inspector	Do.
McHenry Rhoads	State supervisor of high schools	Lexington.
J. V. Chapman	State supervisor of rural schools	Frankfort.
F. C. Button	do	Do.
Lida E. Gardner	State organizer school-improvement leagues and parent-teacher associations.	Do.
Louisiana:		
T. H. Harris	State superintendent of public education	Baton Rouge.
C. A. Ives	High-school inspector	Do.
John M. Foote	Chief State rural-school supervisor	Do.
C. F. Trudeau	Assistant high-school inspector	Do.
Leo M. Favrot	State agent of rural schools for Negroes	Do.
P. L. Gilbeau	Supervisor of agricultural schools (State University)	Do.
John R. Conniff	Chairman State teachers' examining committee	Do.
Cleora C. Helbing	State supervisor of home economics departments	Do.
John E. Lombard	State supervisor of trade and industrial schools	Do.
John Dominique	State supervisor of penmanship	Natchitoches.
Maine:		
Augustus O. Thomas	State superintendent of public schools	Augusta.
G. W. Starkey	Deputy	Do.
Josiah W. Taylor	Agent for secondary education	Do.
H. A. Allan	Agent for rural education	Do.
Florence M. Hale	do	Do.
A. W. Gordon	General agent for schools in unorganized townships	Gorham.
P. H. Smiley	Supervisor of practical arts	Farmington.
Bernardine Cooney	Supervisor of household arts	

IX.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
Maryland:		
M. Bates Stephens	State superintendent of schools	Baltimore.
G. H. Reavis	Assistant State superintendent	Do.
S. M. North	Supervisor of high schools	Do.
Wm. J. Holloway	Supervisor of rural schools	Do.
J. W. Huffington	Supervisor of colored schools	Do.
H. F. Cotterman	Supervisor of vocational agriculture	Do.
L. A. Emerson	Supervisor of industrial education	Do.
Agnes Saunders	Supervisor of home economics	Do.
William Burdick	Supervisor of physical education	Do.
Isaac L. Otis	Supervisor of entrance to professional schools	Do.
Massachusetts:		
Payson Smith	State commissioner of education	Boston.
Frank W. Wright	Deputy commissioner	Do.
Robert O. Small	....do	Do.
Clarence D. Kingsley	Agent for high schools	Do.
Burr F. Jones	Agent for elementary schools	Do.
Walter L. Hamilton [1]	Agent for research	Do.
Robert I. Bramhall	Agent for registration of teachers	Do.
M. Norcross Stratton	Agent for industrial teacher training courses	Do.
Edward C. Baldwin	Business agent	Do.
Michigan:		
Fred L. Keeler	State superintendent of public instruction	Lansing.
John M. Munson	Deputy superintendent	Do.
G. N. Otwell	Assistant superintendent	Do.
W. L. Coffey	....do	Do.
Ella M. Smith	County normal supervisor	Do.
Minnesota:		
J. M. McConnell	State superintendent of education	St. Paul.
P. C. Tonning	Assistant	Do.
G. M. Cesander	....do	Do.
E. M. Phillips	High-school inspector	Do.
Annie E. Shelland	Rural-school supervisor	Do.
S. A. Challman	Commissioner of school buildings	Do.
R. B. MacLean	Graded-school inspector	Minneapolis.
J. G. Norby	Assistant inspector	St. Paul.
E. T. Critchett	Director teachers' employment bureau and secretary of teachers' retirement fund.	Do.
H. E. Flynn	Supervisor teachers' training departments	Do.
C. C. Swain	Rural-school commissioner	Do.
E. M. Phillips	Director of vocational education	Do.
B. M. Gile	Supervisor of agriculture	Do.
G. A. McGarvey	Supervisor of trades and industrial training	Do.
Mildred Weigley	Supervisor of home economics training	Do.
Mississippi:		
W. F. Bond	State superintendent of public education	Jackson.
J. W. Broom	Assistant superintendent of public education	Do.
J. T. Calhoun	State supervisor rural schools	Do.
J. C. Fant	High-school inspector	University.
Bura Hilbun	State supervisor of Negro schools	Collins.
F. J. Hubbard	Director of secondary agricultural education	Jackson.
Missouri:		
Samuel A. Baker	State superintendent of public schools	Jefferson City.
W. M. Oakerson	Chief clerk	Do.
P. P. Callaway	Teacher-training inspector	Do.
D. W. Clayton	High-school inspector	Do.
F. C. Irion	....do	Do.
T. J. Walker	Rural-school inspector	Do.
A. G. Capps	Statistician	Do.
Montana:		
May Trumper	State superintendent of public instruction	Helena.
L. R. Foote	Deputy	Do.
Adelaide M. Ayer	Rural-school inspector	Do.
Charles M. Reinoehl	....do	Do.
Nebraska:		
W. H. Clemmons	State superintendent of public instruction	Lincoln.
J. A. Woodard	Deputy superintendent of public instruction	Do.
Cora A. Thompson	Assistant superintendent of public instruction	Do.
A. H. Dixon	Normal-training inspector	Do.
Alice Florer	Rural-school inspector	Do.
Nevada:		
W. J. Hunting	State superintendent of public instruction	Carson City.
Bertha C. Knemeyer	Deputy superintendent of public instruction	Elko.
James V. Comerford	....do	Ely.
Chauncey W. Smith	....do	Fallon.
George E. McCracken	....do	Reno.
G. E. Anderson	....do	Las Vegas.
Leslie E. Brigham	State director of vocational education	Carson City.
New Hampshire:		
E. W. Butterfield	State superintendent of public instruction	Concord.
George H. Whitcher	Deputy superintendent of public instruction	Do.
Harriet L. Huntress	....do	Do.
James N. Pringle	....do	Do.

[1] On leave of absence with Federal Board for Vocational Education.

IX.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
New Hampshire—Continued.		
Robert J. Mitchell	Inspector child-labor service	New Market.
F. M. Gunn	do	Newport.
John Bishop	Attendance officer	Concord.
New Jersey:		
Calvin N. Kendall	State commissioner of education	Trenton.
John Enright	Deputy commissioner and in charge of hearings in controversies and disputes.	Do.
A. B. Meredith	Assistant commissioner, secondary education	Do.
Zenos E. Scott	Assistant commissioner, elementary education	Do.
Wesley A. O'Leary	Assistant commissioner, industrial education, including agriculture.	Do.
New Mexico:		
J. Howard Wagner	State superintendent of public instruction	Santa Fe.
John V. Conway	Assistant superintendent of public instruction	Do.
Ruth Coleman Miller	State director of industrial education	Do.
E. D. Smith	Director of vocational agriculture	Do.
George Lougee	Chief clerk	Do.
New York:		
John H. Finley	State commissioner of education	Albany.
Thomas E. Finegan	Deputy commissioner and assistant commissioner for elementary education.	Do.
Augustus S. Downing	Assistant commissioner and director of professional education.	Do.
Charles F. Wheelock	Assistant commissioner for secondary education	Do.
James I. Wyer, jr	Director of State library	Do.
John M. Clarke	Director of science and State museum	Do.
Hiram C. Case	Chief of administration division	Do.
James D. Sullivan	Chief of attendance division	Do.
William R. Watson	Chief of educational extension division	Do.
George M. Wiley	Director of examinations and inspections	Do.
James Sullivan	Director of archives and history division	Do.
Frank H. Wood	Chief of school buildings and grounds	Do.
Frank B. Gilbert	Chief of law division	Do.
Frank K. Walter	Vice director of library school	Do.
Sherman Williams	Chief of school libraries division	Do.
Alfred W. Abrams	Chief of visual instruction division	Do.
Lewis A. Wilson	Director of agricultural and industrial education	Do.
North Carolina:		
J. Y. Joyner	State superintendent of public instruction	Raleigh.
W. H. Pittman	Chief clerk	Do.
L. C. Brogden	State agent for rural schools	Do.
N. C. Newbold	State agent for rural colored schools	Do.
E. E. Sams	Supervisor of teacher training	Do.
N. W. Walker	Inspector of public high schools	Chapel Hill.
T. E. Browne	Supervisor of vocational education	Raleigh.
North Dakota:		
Minnie Neilson	State superintendent of public instruction	Bismarck.
Helen J. Sullivan	Assistant State superintendent	Do.
K. B. Macdonald	Deputy	Do.
E. R. Edwards	High-school inspector	Jamestown.
Edward Erickson	State rural-school inspector	Bismarck.
Ohio:		
F. B. Pearson	Superintendent of public instruction	Columbus.
Vernon M. Riegel	Assistant superintendent of public instruction	Do.
H. D. Swygert	Statistician	Do.
C. E. Oliver	High-school inspector	Do.
E. F. Warner	do	Do.
F. C. Landsittel	do	Do.
George R. Twiss	do	Do.
Samuel L. Eby	do	Do.
W. M. Aiken	do	Do.
Oklahoma:		
Robert H. Wilson	State superintendent of public instruction	Oklahoma.
E. N. Collette	Assistant superintendent	Do.
Fred A. McCaulley	Agricultural assistant	Do.
A. C. Parsons	High-school inspector	Norman.
U. J. Griffith	do	Do.
E. A. Duke	Rural-school supervisor	Do.
W. T. Hunt	Chief clerk	Oklahoma.
Oregon:		
J. A. Churchill	State superintendent of public instruction	Salem.
E. F. Carleton	Assistant State superintendent	Do.
Frank K. Welles	do	Do.
N. C. Maris	Field worker in industrial fairs	Do.
L. P. Harrington	do	Do.
Pennsylvania:		
Nathan C. Schaeffer	State superintendent of public instruction	Harrisburg.
R. McNeal	Deputy superintendent	Do.
Reed B. Teitrick	do	Do.
C. D. Koch	High-school inspector	Do.
William S. Taft	do	Do.
W. M. Denison	do	Do.
James G. Pentz	do	Do.
M. B. King	Director of industrial education	Do.
L. H. Dennis	Director of agricultural education	Do.

IX.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
Philippine Islands:		
W. W. Marquardt	Director of education	Manila.
Luther B. Bewley	Assistant director of education	Do.
Camilo Osias	Second assistant director of education	Do.
Carl M. Moore	Superintendent, Department of Mindanao and Sulu.	Do.
Porto Rico:		
Paul G. Miller	Commissioner of education	San Juan.
Carey Hickle	Assistant commissioner	Do.
Ward C. McCroskey	Secretary of department	Do.
M. A. Dacout	General superintendent	Do.
Francisco Vizcarrondo	....do	Do.
Jose Gonzalez Ginorio	General superintendent of Spanish	Do.
Grace J. Ferguson	Supervisor of home economics	Do.
P. J. McMillan	Supervisor of manual arts	Do.
A. J. Sykes	Supervisor of agriculture	Do.
George A. Harriman	Chief, division of property and accounts	Do.
A. Gonzalez Font	Chief, division of school board accounts	Do.
Rhode Island:		
Walter E. Ranger	Commissioner of public schools	Providence.
Emerson L. Adams	Assistant commissioner	Do.
Charles Carroll	Secretary	Do.
Stephen S. Colvin	Inspector of high schools	Do.
Anne W. Congdon	Library visitor	Do.
South Carolina:		
J. E. Swearingen	State superintendent of education	Columbia.
W. A. Shealy	Assistant State superintendent	Do.
J. A. Stoddard	State high-school inspector	Do.
Lueco Gunter	State supervisor of elementary rural schools	Do.
Geo. D. Brown	State supervisor of mill schools	Do.
R. E. Lee	State school architect	Clemson College.
Verd Peterson	State supervisor of agricultural instruction	Do.
Edna F. Coith	State supervisor of domestic science (Winthrop College).	Rock Hill.
J. H. Brannon	State supervisor of negro schools	Columbia.
South Dakota:		
Fred L. Shaw	State superintendent of public instruction	Pierre.
Charles T. King	Deputy superintendent	Do.
Tennessee:		
S. W. Sherrill	State superintendent of public instruction	Nashville.
A. S. Williams	State high-school inspector	Do.
J. B. Brown	State elementary-school inspector	Do.
S. L. Smith	State rural-school supervisor	Do.
Texas:		
Annie Webb Blanton	State superintendent of public instruction	Austin.
S. H. Whitley	First assistant State superintendent	Do.
E. G. Grafton	Assistant State superintendent	Do.
W. S. Fleming	....do	Do.
Julius F. McDonald	Supervisor of public high schools	Do.
J. D. Blackwell	Director of vocational agriculture	Do.
E. L. White	Division of rural schools	Do.
L. T. Cunningham	Rural-school supervisor	Do.
L. Z. Timmons	....do	Do.
N. J. Clancy	Statistician	Do.
Grover Lewis	Auditor	Do.
C. A. Murray	Certificate clerk	Do.
C. A. Jay	Chairman State board of examiners	Do.
W. S. Brandenberger	Secretary State board of examiners	Do.
Walker King	College examiner of State board of examiners	Do.
L. E. Dudley	Supervisor of public high schools	Do.
G. A. Porter	....do	Do.
J. P. Burk	....do	Do.
Emma L. Brown	....do	Do.
Rebecca Switzer	....do	Do.
Utah:		
E. G. Gowans	State superintendent of public instruction	Salt Lake City.
E. J. Norton	Deputy superintendent	Do.
Mosiah Hall	State high-school inspector	Do.
Francis W. Kirkham	Director of vocational education	Do.
I. B. Ball	State supervisor in agriculture	Do.
Jean Cox	State supervisor in home economics	Do.
Vermont:		
M. B. Hillegas	Commissioner of education	Montpelier.
Clyde M. Hill	State supervisor of junior high schools	Do.
Virginia:		
Harris Hart	State superintendent of public instruction	Richmond.
W. T. Hodges	Supervisor of rural schools	Do.
E. E. Worrell	....do	Do.
Arthur D. Wright	Supervisor of colored schools	Do.
Thomas D. Eason	Supervisor of agricultural schools	Do.
S. P. Duke	Supervisor of high schools	Do.
J. N. Hillman	Supervisor of teacher training	Do.
J. H. Montgomery	Executive secretary Cooperative Education Association.	Do.

IX.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
Washington:		
Mrs. Josephine C. Preston	State superintendent of public instruction	Olympia.
Arthur Wilson	Assistant superintendent	Do.
Addie E. Dickinson	Deputy superintendent	Do.
Edwin Twitmyer	High-school inspector	Seattle.
Blanche A. Nagel	Rural assistant	Olympia.
Rose R. Fowler	Secretary State board of examiners	Do.
West Virginia:		
M. P. Shawkey	State superintendent of free schools	Charleston.
E. E. Knight	Assistant State superintendent	Do.
L. L. Friend	Supervisor of high schools	Do.
L. J. Hanifan	Supervisor of rural schools	Do.
Geo. E. Hubbs	Supervisor of examinations	Do.
J. F. Marsh	Secretary of State board of regents	Do.
Wisconsin:		
C. P. Cary	State superintendent of public schools	Madison.
Carter Alexander	Assistant State superintendent	Do.
C. L. Harper	Second assistant State superintendent	Do
O. S. Rice	Supervisor of school libraries	Do.
W. W. Theisen	Supervisor of educational measurements	Do.
Cecil W. Fleming	Assistant supervisor of educational measurements	Do.
H. L. Terry	High-school supervisor	Do.
H. N. Goddard	do	Do.
T. W. Gosling	do	Do.
A. B. Cook	Supervisor of day schools for the deaf and blind	Do.
J. M. Dorrans	Manual-training supervisor	Do.
Geo. H. Drewry	State school supervisor	Do.
S. Miles Thomas	do	Do.
W. T. Anderson	do	Do.
A. A. Thomson	Supervisor of rural schools	Do.
Walter E. Larson	do	Do.
Annie Reynolds	Supervisor of grades	Do.
Maybelle Bush	do	Do.
Amy Bronsky	do	Do.
Helen Goodspeed	Supervisor of domestic science	Do.
Elizabeth L. Woods	Supervisor of exceptional classes	
Wyoming:		
Edith K. O. Clark	State superintendent of public instruction	Cheyenne.
Thomas B. McDonough	Deputy superintendent of public instruction	Do.
J. O. Creager	Commissioner of education	Do.
Jennie G. McGuffey	Chief of the bureau of certification	Do.

X.—Executive Officers of State Boards of Education.[1]

Officers of the board.	Post-office address.	Other official title.
Thomas Riggs, jr., president	Juneau, Alaska	Governor.
George W. P. Hunt, chairman	Phoenix, Ariz	Do.
C. O. Case, secretary	do	State superintendent of public instruction.
J. L. Bond, chairman	Little Rock, Ark	Do.
B. W. Torreyson, secretary	Conway, Ark	
Edward Hyatt, secretary	Sacramento, Cal	Superintendent of public instruction.
Mary C. C. Bradford, president	Denver, Colo	Do.
Alice B. Clark, secretary	do	Deputy State superintendent.
Marcus H. Holcomb, president	Southington, Conn	Governor.
Charles D. Hine, secretary	Hartford, Conn	
Clifford J. Scott, president	Wilmington, Del	
A. R. Spaid, secretary	Dover, Del	State commissioner of education.
Mrs. Margarita Spaulding Gerry, acting president.	Washington, D. C	
H. O. Hine, secretary	do	
Sidney J. Catts, president	Tallahassee, Fla	Governor.
W. N. Sheats, secretary	do	State superintendent of public instruction.
Hugh M. Dorsey, president	Atlanta, Ga	Governor.
M. L. Brittain, secretary and executive.	do	State superintendent of schools.
Evan Evans, president	Grangeville, Idaho	
J. A. Keefer, secretary	Shoshone, Idaho	
Horace Ellis, president (L. N. Hines, after March 15.)	Indianapolis, Ind	Do.
W. W. Parsons, secretary	Terre Haute, Ind	
D. D. Murphy, president	Elkader, Iowa	
W. H. Gemmill, secretary	Des Moines, Iowa	
Lizzie Wooster, president	Topeka, Kans	Do.
L. D. Whittemore, secretary	do	

[1] Forty-one States have State boards of education, as here indicated, including New York State Board of Regents.

X.—EXECUTIVE OFFICERS OF THE STATE BOARDS OF EDUCATION—Continued.

Officers of the board.	Post-office address.	Other official title.
V. O. Gilbert, chairman	Frankfort, Ky	State superintendent of public instruction.
E. L. Kidd, president	Ruston, La	
T. H. Harris, secretary	Baton Rouge, La	State superintendent of public education.
Thomas H. Lewis, president	Westminster, Md	President Western Maryland College.
M. Bates Stephens, secretary	Baltimore, Md	
Frederick P. Fish, chairman	Boston, Mass	State superintendent of public education
Payson Smith, executive officer	do	
Frank Cody, president	Detroit, Mich	State commissioner of education.
Fred L. Keeler, secretary	Lansing, Mich	
W. F. Bond, president	Jackson, Miss	State superintendent of public instruction.
J. W. Power, secretary	do	State superintendent of public education.
Samuel A. Baker, president	Jefferson City, Mo	Secretary of state.
John L. Sullivan, secretary	do	State superintendent of public schools.
S. V. Stewart, president	Helena, Mont	Secretary of state.
May Trumper, secretary	do	Governor.
Emmet D. Boyle, president	Carson City, Nev	State superintendent of public instruction.
W. J. Hunting, secretary	do	Governor.
M. A. Rice, president	Atlantic Highlands, N. J.	State superintendent of public instruction.
Calvin N. Kendall, secretary	Trenton, N. J	
W. E. Lindsey, president	Santa Fe, N. Mex	State commissioner of education.
J. Harold Wagner, secretary	do	Governor.
Pliny T. Sexton, chancellor of the university.	Palmyra, N. Y	State superintendent of public instruction.
John H. Finley, chief executive	Albany, N. Y	
T. W. Bickett, president	Raleigh, N. C	President of the university and State commissioner of education.
J. Y. Joyner, secretary	do	Governor.
Minnie Neilson, president	Bismarck, N. Dak	State superintendent of public instruction.
K. B. Macdonald, secretary	do	Superintendent of public instruction.
Alfred Vivian, president	Columbus, Ohio	Deputy superintendent of public instruction.
F. B. Pearson, secretary	do	Dean of College of Agriculture (State University).
R. H. Wilson, chairman	Oklahoma, Okla	Superintendent of public instruction.
T. T. Montgomery, secretary	do	State superintendent of public instruction.
James Withycomb, president	Salem, Oreg	
J. A. Churchill, secretary	do	Governor.
Nathan C. Schaeffer, president	Harrisburg, Pa	State superintendent of public instruction.
J. George Becht, executive secretary	do	Do.
R. L. Beeckman, president	Newport, R. I	
Walter E. Ranger, secretary	Providence, R. I	Governor.
Richard I. Manning, chairman	Columbia, S. C	Commissioner of public schools.
J. E. Swearingen, secretary	do	Governor.
P. L. Harned, president	Clarksville, Tenn	State superintendent of education.
S. W. Sherrill, ex officio secretary	Nashville, Tenn	President of State board of industrial education.
W. P. Hobby, president	Austin, Tex	State superintendent of public instruction.
Annie Webb Blanton, secretary	do	Governor.
E. G. Gowans, chairman	Salt Lake City, Utah	State superintendent of public instruction.
J. A. Widtsoe, secretary	do	Do.
E. J. Norton, assistant secretary	do	
James Hartness, chairman	Springfield, Vt	Deputy superintendent.
Rollo G. Reynolds, executive clerk	Montpelier, Vt	
Harris Hart, president	Richmond, Va	
William R. Smithey, secretary	do	State superintendent of public instruction.
Mrs. Josephine C. Preston, president	Olympia, Wash	
Arthur Wilson, acting secretary	do	Do.
M. P. Shawkey, president	Charleston, W. Va	Assistant superintendent of public instruction.
J. F. Marsh, secretary	do	State superintendent of free schools.
Herman Grotophorst, president	Madison, Wis	
F. S. Lamb, secretary	do	
S. A. Huston, chairman	Cheyenne, Wyo	
J. O. Creager, secretary	do	Commissioner of education.

XI.—Executive Officers of State Library Commissions.[1]

Executive officer.	Post-office address.	Name of commission.
Thomas M. Owen, director	State Capitol, Montgomery, Ala.	State department of archives and history, library extension division.
George B. Rose, chairman	Little Rock, Ark	Arkansas library commission.
Milton J. Ferguson, State librarian	Sacramento, Cal	California State library.
Chalmers Hadley, president	Public Library, Denver, Colo.	State board of library commissioners.
Carrie M. Cushing, librarian and clerk	The Capitol, Denver, Colo	State traveling library commission.
C. D. Hine, chairman	Hartford, Conn	Connecticut public library committee.
Earle D. Willey, secretary	State Library, Dover, Del	State library commission
Susie Crumley, organizer	Carnegie Library, Atlanta, Ga.	Do.
Mrs. Marie M. Schreiber, secretary	Statehouse, Boise, Idaho	Do.
Anna M. Price, secretary	Springfield, Ill	Illinois library extension commission.
William J. Hamilton, secretary	Statehouse, Indianapolis, Ind.	State public library commission.
Julia A. Robinson, secretary	State Historical Building, Des Moines, Iowa.	State library commission.
Mrs. Adrian Greene, secretary	State Library, Topeka, Kans.	Kansas traveling libraries commission.
Fannie A. Rawson, secretary	Capitol, Frankfort, Ky	Kentucky library commission.
Henry E. Dummick, secretary	State Library, Augusta, Me.	Maine library commission.
Mrs. M. A. Newell, secretary	Enoch Pratt Free Library, Baltimore, Md.	Maryland public library commission.
E. Louise Jones, general secretary and library adviser.	State Library, Boston, Mass.	Massachusetts free public library commission.
Mrs. Mary C. Spencer, secretary	State Library, Lansing, Mich.	State board of library commissioners.
Clara F. Baldwin, director	The Capitol, St. Paul, Minn.	State public library commission.
Elizabeth B. Wales, secretary	202 Washington St., Jefferson City, Mo.	Missouri library commission.
Charlotte Templeton, secretary	The Capitol, Lincoln, Nebr.	State public library commission.
Albertus T. Dudley, secretary	Exeter, N. H.	Do.
Henry C. Buchanan, secretary	Trenton, N. J	Do.
James I. Wyer, jr., director	Albany, N. Y	State library.
William R. Watson, chief of division.	do	Division of educational extension, University of the State of New York.
Mrs. Edward R. Blanton, secretary	Raleigh, N. C	North Carolina library commission.
Mrs. Minnie C. Budlong, secretary	Bismarck, N. Dak	State public library commission.
John H. Newman, secretary	State Library, Columbus, Ohio.	State board of library commissioners.
Cornelia Marvin, librarian	Supreme court building, Salem, Oreg.	State library.
T. L. Montgomery, secretary	State Library, Harrisburg, Pa.	Pennsylvania free library commission.
Walter E. Ranger, secretary	Statehouse, Providence, R. I.	State committee on libraries, Rhode Island State education department.
Julia C. Stockett, field librarian	Statehouse, Pierre, S. Dak	State free library commission.
Elizabeth H. West, secretary	State Library, Austin, Tex	State library and historical commission.
Mary E. Downey, secretary and organizer.	Salt Lake City, Utah	State library.
Ruth L. Brown, secretary	34 Elm St., Montpelier, Vt	State free public library commission.
H. R. McIlwaine, librarian	State Library, Richmond, Va.	Virginia State library.
J. M. Hitt, secretary	State Library, Olympia, Wash.	State library commission.
Matthew S. Dudgeon, secretary	The Capitol, Madison, Wis	Wisconsin free library commission.

[1] Thirty-six States have library commissions as here indicated.

XII.—County and Other Local Superintendents of Schools.

County.	County superintendent.
ALABAMA.	
Autauga	Mrs. R. L. Faucett, Prattville.
Baldwin	J. S. Lambert, Bay Minette.
Barbour	J. M. Laird, Clio.
Bibb	R. C. Thomas, Centerville.
Blount	A. L. Head, Cleveland.
Bullock	F. B. Haynes, Union Springs.
Butler	P. B. Pepper, Georgiana.
Calhoun	H. T. Persons, Anniston.
Chambers	G. M. Barnett, Lafayette.
Cherokee	John W. Browder, Galesville.
Chilton	Willie T. Bean, Clanton.
Choctaw	Zac Rogers, Butler.
Clarke	J. F. Gillis, Grove Hill.
Clay	W. T. Harwell, Ashland.
Cleburne	G. B. Boman, Heflin.
Coffee	G. C. Bowden, Elba.
Colbert	Joe Walker, Tuscumbia.
Conecuh	W. R. Bennett, Red Level.
Coosa	H. H. King, Kellyton.
Covington	Chas. Baker, Andalusia.
Crenshaw	T. A. Capps, Luverne.
Cullman	Geo. C. Metz, Cullman.
Dale	R. L. Marchman, Pinckard.
Dallas	D. M. Callaway, Selma.
Dekalb	J. M. Tucker, Boaz.
Elmore	G. H. Howard, Wetumpka.
Escambia	R. E. Ledbetter, Brewton.
Etowah	E. P. Murphy, Gadsden.
Fayette	R. L. Reaves, Fayette.
Franklin	John R. Guin, Belgreen.
Geneva	B. H. Boyd, Hartford.
Greene	W. P. Archibald, Knoxville.
Hale	W. C. Willburn, Evergreen.
Henry	P. A. McDaniel, Abbeville.
Houston	J. M. Odom, Dothan.
Jackson	Jesse Wheeler, Scottsboro.
Jefferson	N. R. Baker, Birmingham.
Lamar	G. S. Smith, Vernon.
Lauderdale	D. O. Warren, Florence.
Lawrence	C. C. Kerby, Moulton.
Lee	W. Y. Fleming, Phoenix.
Limestone	M. K. Clements, Athens.
Lowndes	J. A. Coleman, Hayneville.
Macon	W. B. Riley, Tuskegee.
Madison	S. R. Butler, Huntsville.
Marengo	Geo. M. Watson, Linden.
Marion	J. H. Couch, Guin.
Marshall	E. O. Creel, Boaz.
Mobile	S. S. Murphy, Mobile.
Monroe	Geo. A. Harris, Monroeville.
Montgomery	W. F. Feagin, Montgomery.
Morgan	J. C. Tidwell, Albany.
Perry	Chas. C. Johnson, Marion.
Pickens	W. H. Storey, Carrollton.
Pike	Mrs. J. M. Sanders, Troy.
Randolph	J. N. Word, Wedowee.
Russell	H. E. Hutchinson, Hurtsboro.
Shelby	S. P. Williamson, Sterrett, R. F. D. No. 1.
St. Clair	Geo. W. Floyd, Ashville.
Sumter	R. B. Callaway, Cuba.
Talladega	M. T. Linder, Talladega.
Tallapoosa	J. D. Lane, Dadeville.
Tuscaloosa	D. L. Smith, Tuscaloosa.
Walker	T. J. York, Jasper.
Washington	C. C. Smith, Chatom.
Wilcox	O. C. Weaver, Camden.
Wintons	A. B. Curtis, Double Springs.

District.	District superintendents of schools for natives.
ALASKA.	
Northwestern dist.	Walter C. Shields, Nome.
Western dist.	Walter H. Johnson, St. Michael.
Do.	John H. Kilbuck (assistant), Akiak.
Upper Yukon dist.	Frederick L. Forbes, Tanana.
Southwestern dist.	Arthur H. Miller, Anchorage.
Southeastern dist.	C. W. Hawkesworth, Juneau.

County.	County superintendent.
ARIZONA.	
Apache	J. W. Brown, St. Johns.
Cochise	Elsie Tales, Tombstone.
Coconino	Lenore Frances, Flagstaff.
Gila	Mabry Crozier, Globe.
Graham	S. C. Heywood, Safford.
Greenlee	Jessie Billingsley, Clifton.
Maricopa	A. H. Fulton, Phoenix.
Mohave	Mrs. L. J. Lassell, Kingman.
Navajo	Joseph Peterson, Holbrook.
Pima	Vera Z. Shurtz, Tucson.
Pinal	Lola Le Baron, Florence.
Santa Cruz	Mrs. Josephine Saxon, Nogales.
Yavapai	W. Curtis Miller, Prescott.
Yuma	Nora E. Marrow, Yuma.
ARKANSAS.	
Arkansas	J. M. Henderson, jr., DeWitt.
Ashley	Guy E. Smith, Hamburg.[1]
Baxter	H. A. Goatcher, Mountain Home.[1]
Benton	W. R. Edwards, Bentonville.
Boone	J. O. Curnutt, Bellefonte.[1]
Bradley	E. W. McGough, Warren.[1]
Calhoun	G. J. James, Hampton.[1]
Carroll:	
Eastern dist.	C. E. Bennett, Berryville.[1]
Western dist.	M. L. McCall, Eureka Springs.[1]
Chicot	D. T. Henderson, Eudora.
Clark	H. A. Woodward, Arkadelphia.[1]
Clay:	
Eastern dist.	W. O. Irby, Piggott.[1]
Western dist.	Archie Taylor, Corning.[1]
Cleburne	Fred Moore, Heber Springs.
Cleveland	T. H. Berry, Rison.[1]
Columbia	V. M. Hardin, McNeil.[1]
Conway	W. A. Tucker, Plummerville.[1]
Craighead	Oscar Findley, Jonesboro.[1]
Crawford	H. W. Shaffer, Van Buren.
Crittenden	T. P. Johnson, Earle.
Cross	S. R. Curtis, Wynne.[1]
Dallas	U. C. Barnett, Fordyce.[1]
Desha	L. M. Gary, Dumas.[1]
Drew	V. R. Morgan, Wilmar.[1]
Faulkner	A. A. Parsons, jr., Mount Vernon.[1]

[1] County examiner.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
ARKANSAS—contd.	
Franklin:	
Charleston dist.	G. L. Amos, Charleston.[1]
Ozark dist.	W. I. Agee, Ozark.[1]
Fulton	H. E. Watson, Viola.[1]
Garland	O. L. Henderson, Hot Springs.
Grant	T. Nathan Nall, Sheridan.[1]
Greene	J. A. Walden, Paragould, R. F. D. No. 2.[1]
Hempstead	J. J. Roberts, Hope, R. F. D. No. 2.[1]
Hot Spring	J. L. Pratt, Malvern.[1]
Howard	A. L. Merrell, Nashville.[1]
Independence	Sidney Pickens, Batesville.[1]
Izard	W. E. Schultz, Calico Rock.[1]
Jackson	E. H. Bowman, Newport.
Jefferson	A. W. Lowe, Pine Bluff.
Johnson	J. W. Sallis, Clarksville.
Lafayette	J. F. Bright, Lewisville.[1]
Lawrence	R. C. Waldron, Black Rock.[1]
Lee	L. N. Whitenton, Marianna.
Lincoln	F. E. Grumbles, Star City.[1]
Little River	D. P. Holmes, Ashdown.[1]
Logan:	
Southern dist.	G. A. Scott, Booneville.[1]
Northern dist.	W. H. Houser, Ratcliff.[1]
Lonoke	W. C. Davis, Lonoke.
Madison	Troy Clark, Huntsville.[1]
Marion	W. H. Bryant, Yellville.[1]
Miller	T. V. Reid, Texarkana.
Mississippi	J. T. Miller, Blytheville.
Monroe	W. H. Laney, Clarendon.
Montgomery	W. G. Miller, Mount Ida.
Nevada	C. M. Hirst, Prescott.[1]
Newton	H. E. Martin, Jasper.
Ouachita	C. D. Umstead, Stephens.[1]
Perry	W. B. Loudermilk, Adona.[1]
Phillips	E. M. Pipkin, jr., Helena.[1]
Pike	T. A. Floyd, Daisy.[1]
Poinsett	H. B. Thorn, Harrisburg.
Polk	W. H. Pigg, Mena.[1]
Pope	H. A. Rushing, Atkins.[1]
Prairie	J. C. Griffin, Hickory Plains.
Pulaski	R. H. Parham, Little Rock.[1]
Randolph	R. A. Mock, Warm Springs.[1]
Saline	W. H. Morden, Alexandria.[1]
Scott	G. C. Ellis, Waldron.[1]
Searcy	N. M. Sutterfield, Marshall.[1]
Sebastian	L. M. Redwine, Greenwood.
Sevier	J. G. Moore, De Queen.[1]
Sharp:	
Northern dist.	M. A. Kellet, Williford.[1]
Southern dist.	J. W. Taylor, Cave City.[1]
St. Francis	J. M. Wilson, Forrest City.[1]
Stone	E. R. Hinkle, Marcella.[1]
Union	Perry Nelson, Wesson.[1]
Van Buren	O. M. Jennings, Choctaw.[1]
Washington	W. F. Buck, Fayetteville.
White	J. W. Henry, Searcy.
Woodruff:	
Northern dist.	W. N. Wilkes, McCrory.[1]
Southern dist.	C. C. Hunnicutt, Cotton Plant.[1]
Yell:	
Danville dist.	N. M. Campbell, Gravelly.[1]
Dardanelle dist.	T. A. Wright, Centerville.[1]
CALIFORNIA.	
Alameda	Geo. W. Frick, Oakland.
Alpine	Mrs. Eugenia M. Bruns, Sheridan, Nev.
Amador	Mrs. Sabra Greenhalgh, Jackson.
Butte	Mrs. Pearle Rutherford, Oroville.
Calaveras	Teresa Rivara, San Andreas.
Colusa	Perle Sanderson, Colusa.
Contra Costa	Wm. H. Hanlon, Martinez.
Del Norte	Jos. M. Hamilton, Crescent City.
Eldorado	S. B. Wilson, Placerville.
Fresno	E. W. Lindsay, Fresno.
Glenn	S. M. Chaney, Willows.
Humboldt	Geo. Underwood, Eureka.
Imperial	A. P. Shibley, El Centro.
Inyo	Mrs. M. A. Clarke, Bishop.
Kern	L. E. Chenoweth, Bakersfield.
Kings	J. E. Meadows, Hanford.
Lake	Minerva Ferguson, Lakeport.
Lassen	Julia Norwood, Susanville.
Los Angeles	Mark Keppel, Los Angeles.
Madera	Craig Cunningham, Madera.
Marin	Jas. B. Davidson, San Rafael.
Mariposa	John L. Dexter, Mariposa.
Mendocino	Mrs. Anna Porterfield, Ukiah.
Merced	Margaret Sheehy, Merced.
Modoc	Mrs. Nettie B. Harris, Alturas.
Mono	Mrs. A. M. Hays, Bridgeport.
Monterey	Geo. Schultzberg, Salinas.
Napa	Lena A. Jackson, Napa.
Nevada	R. J. Fitzgerald, Nevada City.
Orange	R. P. Mitchell, Santa Ana.
Placer	Irene Burns, Auburn.
Plumas	Mrs. Kate L. Donnelley, Quincy.
Riverside	Raymond Cree, Riverside.
Sacramento	Carolyne M. Webb, Sacramento.
San Benito	W. J. Cagney, Hollister.
San Bernardino	Mrs. Grace C. Stanley, San Bernardino.
San Diego	John F. West, San Diego.
San Francisco	Alfred Roncovieri, San Francisco.
San Joaquin	John W. Anderson, Stockton.
San Luis Obispo	W. S. Wight, San Luis Obispo.
San Mateo	Roy W. Cloud, Redwood City.
Santa Barbara	Mamie V. Lehner, Santa Barbara.
Santa Clara	Agnes E. Howe, San Jose.
Santa Cruz	Champ S. Price, Santa Cruz.
Shasta	Mrs. Charlotte Cunningham, Redding.
Sierra	Belle Alexander, Downieville.
Siskiyou	W. H. Parker, Yreka.
Solano	Dan H. White, Fairfield.
Sonoma	Florence Barnes Schieffer, Santa Rosa.
Stanislaus	Frank Bacon, Modesto.
Sutter	Lizzie Vagedes, Yuba City.
Tehama	Mamie B. Lang, Red Bluff.
Trinity	Maude I. Schroter, Weaverville.
Tulare	J. E. Buckman, Visalia.
Tuolumne	G. P. Morgan, Sonora.
Ventura	Jas. E. Reynolds, Ventura.
Yolo	Harriett S. Lee, Woodland.
Yuba	Jennie Malaley, Marysville.
COLORADO.	
Alamosa	Ada Sundquist, Alamosa.
Adams	Helen Lamb, Brighton.
Arapahoe	Mrs. Sada R. Wilson, Littleton.
Archuleta	Mrs. Alice Noland, Pagosa Springs.
Baca	Earl C. Denney, Springfield.
Bent	Allie V. Richmond, Las Animas.
Boulder	E. D. Webb, Boulder.
Chaffee	Mrs. Rosa W. Ridgway, Buena Vista.
Cheyenne	Mrs. Esther B. Weir, Cheyenne Wells.
Clear Creek	Mrs. Elizabeth Gleason, Idaho Springs.
Conejos	L. H. Mortensen, Sanford.

[1] County examiner.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
COLORADO—contd.	
Costilla	Mrs. Katherine Wood, Blanca.
Crowley	Walter Dalby, Ordway.
Custer	Lloyd Wright, Westcliffe.
Delta	Mrs. Adah Price, Delta.
Denver	Mrs. Emma G. Seldon, Denver.
Dolores	Mrs. Bessie Custiss, Rico.
Douglas	Mrs. Maude Hoskins, Castle Rock.
Eagle	Ollie Graham, Redcliff.
Elbert	Minerva McCarty, Kiowa.
El Paso	Mrs. Inez Johnson Lewis, Colorado Springs.
Fremont	Anna S. Garwood, Canon City.
Garfield	Mrs. Tippett Westerman, Glenwood Springs.
Gilpin	Mrs. Edith Williams, Central City.
Grand	Mrs. Carrie D. Schnoor, Hot Sulphur Springs.
Gunnison	Verna Waterman, Gunnison.
Hinsdale	Alice Madison, Lake City.
Huerfano	Mrs. Martha Thorne, Walsenburg.
Jackson	Mrs. Minnie Bock, Walden.
Jefferson	Berness Bunger, Golden.
Kiowa	James R. Walker, Chivington.
Kit Carson	Jessie Magee Gray, Burlington.
Lake	Mrs. Martha B. Johnson, Leadville.
La Plata	Nell McCartey, Durango.
Larimer	Emma T. Wilkins, Fort Collins.
Las Animas	Elmore Floyd, Trinidad.
Lincoln	Miss Lennie Beavers, Hugo.
Logan	Flora A. Allison, Sterling.
Mesa	Mrs. Elizabeth Hinton, Grand Junction.
Mineral	Mrs. Mary N. Oates, North Creede.
Moffat	George W. Norvell, Craig.
Montezuma	Artie M. Lewis, Cortez.
Montrose	Emma Full, Montrose.
Morgan	Mrs. C. P. Cochran, Fort Morgan.
Otero	S. S. Phillips, La Junta.
Ouray	Alma Brockway, Ouray.
Park	Miss Marian Hill, Fairplay.
Phillips	Chas. R. Peters, Holyoke.
Pitkin	Ethel Higinbotham, Aspen.
Prowers	Mary Z. Lake, Lamar.
Pueblo	Mrs. Lillie O. Baker, Pueblo.
Rio Blanco	R. B. Garrison, Meeker.
Rio Grande	Carrie Deitrich, Monte Vista.
Routt	Mrs. Emma H. Peck, Hayden.
Saguache	S. E. Forbes, Saguache.
San Juan	Mrs. Mary B. Hodges, Silverton.
San Miguel	Bertha T. Cameron, Telluride.
Sedgwick	Emma Carlson, Julesburg.
Summit	Mrs. Melissa Hayden, Breckenridge.
Teller	Mrs. Nellie Slusher, Cripple Creek.
Washington	Mrs. Rose Bachman, Akron.
Weld	A. B. Copeland, Greeley.
Yuma	Clara Tegner, Wray.

Towns in union.	Union superintendent.[1]
CONNECTICUT.[2]	
Ashford, Canterbury, Eastford, Union.	William H. Bliss, Chestnut Hill.
Avon, Burlington, Farmington.	Lewis S. Mills, 58 East Main Street, Plainville.
Barkhamsted, Colebrook, Hartland, New Hartford, Morris.	A. D. Simpson, 78 South Main Street, Winsted.
Beacon Falls, Bethany, Middlebury, Oxford, Prospect, Wolcott.	Wm. H. Holmes, Seymour, R. F. D. No. 1.
Berlin, Westbrook	Joseph W. Dows, 331 Temple Street, New Haven.
Bethlehem	L. K. Chance, Watertown.
Bloomfield, Canton, Granby.	W. H. Mandrey, Warehouse Point.
Bolton, Ellington, Somers.	Charles L. Warner, 1 Pine Street, Rockville.
Bozrah, Franklin, Lisbon, Sprague.	Fred W. Shearer, 118 River Avenue, Norwich.
Bridgewater, Kent, Roxbury, Sherman, Washington.	J. L. Meader, New Milford, Box 98.
Brookfield, New Fairfield, Redding, Southbury, Wilton.	F. A. Morris, 27 Crane Street, Danbury.
Canaan, North Canaan, Salisbury.	Harold E. Chittenden, Canaan.
Cheshire, Middlefield, North Haven, Old Lyme.	Dewitt C. Allen, Montowese.
Chester	Robert E. Foote, Chester.
Columbia, Mansfield, Pomfret.	Frank W. Clapp, 175 Summit Street, Willimantic.
Cornwall, Goshen, Sharon, Warren.	C. H. Westbrook, West Cornwall.
Coventry, Lebanon, Tolland.	A. B. Lord, Box 252, Willimantic.
Cromwell, Durham, East Hampton, Lyme.	James F. Connolly, 56 High Street, Farm Hill, Middletown.
East Granby	Wilson S. Dakin, 31 Norfolk Street, Hartford.
East Lyme, Montville, Waterford.	Carlon E. Wheeler, 81 Lincoln Avenue, New London.
Easton, Monroe, Trumbull, Weston.	D. Albert Green, 15 Maple Street, Norwalk.
Haddam, Killingworth, Portland.	A. C. Johnson, Box 613, Portland.
Hampton, Scotland	N. Searle Light, 138 Edgewood Street, Hartford.
Harwinton, North Branford, Woodbury.	A. F. Mayhew, 131 Prince Street, Wallingford.
Hebron, Marlboro, Salem.	H. S. Libby, Colchester
Ledyard, North Stonington, Preston, Voluntown.	Otis Earle Lowell, 156 Laurel Hill Avenue, Norwich.
Madison	Arthur L. Young, 105 Rogers Street, Branford.
Rocky Hill, Suffield	Harold B. Chapman, Box 7, Suffield.
Saybrook, Wethersfield.	H. O. Clough, West Hartford.
Sterling	E. Ward Ireland, Y. M. C. A., Hartford.
Willington	Levi T. Garrison, 17 Godfrey Street, Willimantic.
Woodstock	F. E. Harrington, 61 Grove Street, Putnam.

[1] The supervising officers are agents of the State Board of Education.

[2] See also p. 74.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
DELAWARE.	
Kent	John Shilling, Dover.
New Castle	Wilbur H. Jump, Wilmington.
Sussex	Ernest J. Hardesty, Seaford.
FLORIDA.	
Alachua	E. R. Simmons, Gainesville.
Baker	J. D. Dugger, Macclenny.
Bay	A. M. Douglas, Panama City.
Bradford	E. R. Poppell, Starke.
Brevard	S. J. Overstreet, Titusville.
Broward	J. M. Holding, Fort Lauderdale.
Calhoun	J. Flake Durham, Blountstown.
Citrus	H. J. Dame, Inverness.
Clay	G. J. North, Green Cove Springs.
Columbia	James R. Lites, Lake City.
Dade	R. E. Hall, Miami.
De Soto	P. G. Shaver, Arcadia.
Duval	F. A. Hathaway, Jacksonville.
Escambia	A. S. Edwards, Pensacola.
Flagler	B. F. Buchanan, Bunnell.
Franklin	A. A. Core, Apalachicola.
Gadsden	C. H. Gray, Quincy.
Hamilton	J. A. Jackson, Jasper.
Hernando	W. O. Lemasters, Brooksville.
Hillsboro	J. E. Knight, Tampa.
Holmes	M. R. Robison, Bonifay.
Jackson	M. O. King, Marianna.
Jefferson	S. H. Taylor, Monticello.
Lafayette	J. Homer Kelly, Mayo.
Lake	W. T. Kennedy, Umatilla.
Lee	J. W. Sherrill, Fort Myers.
Leon	F. S. Hartsfield, Tallahassee.
Levy	W. F. Osteen, Bronson.
Liberty	R. E. Turner, Hosford.
Madison	G. W. Tedder, Madison.
Manatee	B. D. Gullett, Bradentown.
Marion	J. H. Brinson, Ocala.
Monroe	Virgil S. Lowe, Key West.
Nassau	L. L. Owens, Fernandina.
Okaloosa	Will C. Pryor, Crestview.
Okeechobee	R. E. Hamrick, Okeechobee.
Orange	A. B. Johnson, Orlando.
Osceola	C. E. Yowell, Kissimmee.
Palm Beach	J. B. McDonald, West Palm Beach.
Pasco	J. W. Sanders, Dade City.
Pinellas	Dixie M. Hollins, Clearwater.
Polk	John A. Moore, Bartow.
Putnam	C. H. Price, Palatka.
St. Johns	D. D. Corbett, St. Augustine.
St. Lucie	J. W. Hodge, Fort Pierce.
Santa Rosa	J. D. Smith, jr., Milton.
Seminole	T. W. Lawton, Sanford.
Sumter	G. H. Tompkins, Wildwood.
Suwanee	J. W. O'Hara, Live Oak.
Taylor	Festus S. Jackson, Perry.
Volusia	C. R. M. Sheppard, De Land.
Wakulla	C. K. Allen, Sopchoppy.
Walton	J. J. Kennedy, De Funiak Springs.
Washington	J. H. Varnum, Vernon.
GEORGIA.	
Appling	B. D. Deen, Baxley.
Bacon	Geo. A. Taylor, Alma.
Baker	J. H. Hall, Newton.
Baldwin	Edward Tigner, Milledgeville.
Banks	J. T. Wise, Baldwin.
Barrow	W. M. Holsenbeck, Winder.
Bartow	J. W. Jackson, Cartersville.
Ben Hill	J. H. Bullard, Fitzgerald.
Berrien	S. J. Baker, Nashville.
Bibb	C. H. Bruce, Macon.

County.	County superintendent.
GEORGIA—contd.	
Bleckley	H. E. Harville, Cochran.
Brooks	John F. McCall, Quitman.
Byran	Edward Benton, Pembroke.
Bulloch	B. R. Olliff, Statesboro.
Burke	H. C. Daniel, Waynesboro.
Butts	Hugh Mallet, Jackson.
Calhoun	H. T. Singleton, Edison.
Camden	T. E. Casey, St. Marys.
Campbell	W. H. McLarin, Fairburn.
Candler	M. H. Williams, Metter.
Carroll	V. D. Whatley, Carrolton.
Catoosa	S. J. Bowman, Ringgold.
Charlton	T. E. Brock, Folkston.
Chatham	C. B. Gibson, Savannah.
Chattahoochee	C. N. Howard, Cusseta.
Chattooga	S. E. Jones, Summerville.
Cherokee	T. A. Doss, Canton.
Clarke	T. H. Dozier, Athens.
Clay	E. R. King, Fort Gaines.
Clayton	W. L. Gilbert, Jonesboro.
Clinch	J. O. Rodgers, Homerville.
Cobb	Bernard Awtrey, Marietta.
Coffee	J. Gordon Floyd, Douglas.
Colquitt	Lee S. Dismuke, Moultrie.
Columbia	J. L. Weeks, Appling.
Coweta	J. M. Starr, Newnan.
Crawford	J. F. Dickey, Musella.
Crisp	J. W. Bivins, Cordele.
Dade	S. J. Hale, Trenton.
Dawson	A. W. Vandiviere, Dawsonville.
Decatur	J. B. L. Barber, Bainbridge.
Dekalb	R. E. Carroll, Decatur.
Dodge	M. W. Harrell, Eastman.
Dooly	J. M. Royal, Vienna.
Dougherty	S. R. De Jarnette, Albany.
Douglas	G. T. McLarty, Douglasville.
Early	E. A. Evans, Blakely.
Echols	R. W. Touchton, Statenville.
Effingham	A. E. Bird, Guyton.
Elbert	T. J. Cleveland, Elberton.
Emanuel	Robert E. Rountree, Swainsboro.
Evans	R. M. Girardeau, Claxton.
Fannin	F. L. Cochran, Epworth.
Fayette	E. E. Thornton, Fayetteville.
Floyd	W. C. Rash, Rome.
Forsyth	A. C. Kennemore, Cumming.
Franklin	E. McDuffie, Carnesville.
Fulton	J. W. Simmons, Atlanta.
Gilmer	J. S. Hudson, Ellijay.
Glascock	J. P. Allen, Mitchell.
Glynn	N. H. Ballard, Brunswick.
Gordon	Ernest Dillard, Calhoun.
Grady	J. S. Weathers, Cairo.
Greene	W. A. Purks, White Plains.
Gwinnett	C. R. Ware, Lawrenceville.
Habersham	Arthur Sisk, Clarkesville.
Hall	J. D. Underwood, Gainesville.
Hancock	C. W. Moran, Sparta.
Haralson	John W. White, Buchanan.
Harris	Tom Wisdom, Chipley.
Hart	W. B. Morris, Hartwell.
Heard	W. E. Denney, Franklin.
Henry	T. J. Horton, McDonough.
Houston	F. M. Greene, Perry.
Irwin	J. W. Weaver, Ocilla.
Jackson	L. F. Elrod, Jefferson.
Jasper	J. M. Elizer, Monticello.
Jeff Davis	J. A. Walker, Hazelhurst.
Jefferson	H. E. Smith, Bartow.
Jenkins	W. V. Lanier, Millen.
Johnson	A. J. M. Robinson, Wrightsville.
Jones	E. W. Sammons, Gray.
Laurens	J. T. Smith, Dublin.
Lee	S. J. Powell, Leesburg.
Liberty	J. E. Groover, Hinesville.
Lincoln	T. L. Perryman, Lincolnton.
Lowndes	M. L. Strong, Valdosta.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
GEORGIA—contd.	
Lumpkin	H. F. Higgins, Dahlonega.
McDuffie	M. W. Dunn, Thomson.
McIntosh	W. A. Branson, Darien.
Macon	J. P. Nelson, Oglethorpe.
Madison	C. B. Ayres, Danielsville.
Marion	W. E. Drane, Buena Vista.
Meriwether	W. S. Howell, Greenville.
Miller	W. L. Stapleton, Colquitt.
Milton	Wm. Rhodes, Alpharetta.
Mitchell	G. E. West, Camilla.
Monroe	R. L. Williams, jr., Forsyth.
Montgomery	T. B. Conner, Mount Vernon.
Morgan	W. C. Thompson, Madison.
Murray	W. D. Gregory, Crandall.
Muscogee	J. L. Bond, Columbus.
Newton	G. C. Adams, Covington.
Oconee	J. M. McRee, Watkinsville.
Oglethorpe	M. S. Weaver, Lexington.
Paulding	C. A. Roberts, Dallas.
Pickens	G. F. Compton, Jasper.
Pierce	R. D. Thomas, Blackshear.
Pike	F. L. Adams, Zebulon.
Polk	John W. Sutton, Cedartown.
Pulaski	A. W. Fountain, Hawkinsville.
Putnam	W. C. Wright, Eatonton.
Quitman	H. M. Kaigler, Georgetown.
Rabun	L. M. Chastain, Tiger.
Randolph	Walter McMichael, Cuthbert.
Richmond	Lawton B. Evans, Augusta.
Rockdale	G. W. Crumbley, Conyers.
Schley	J. T. Stewart, Ellaville.
Screven	H. J. Arnett, Sylvania.
Spalding	W. H. Bolton, jr., Griffin.
Stephens	J. I. Allman, Toccoa.
Stewart	W. T. Halliday, Lumpkin.
Sumter	E. J. McMath, Americus.
Talbot	H. P. Hewitt, Talbotton.
Taliaferro	W. R. Moore, Sharon.
Tattnall	I. S. Smith, Reidsville.
Taylor	A. S. Wallace, Butler.
Telfair	B. J. Reid, McRae.
Terrell	J. C. Dukes, Dawson.
Thomas	C. H. Rice, Thomasville.
Tift	A. J. Ammons, Tifton.
Toombs	G. C. Brantley, Lyons.
Towns	R. T. Coleman, Hiawassee.
Troup	J. B. Strong, Lagrange.
Turner	D. A. Stewart, Ashburn.
Twiggs	A. M. Gates, Jeffersonville.
Union	T. L. Patterson, Blairsville.
Upson	J. A. Thurston, Thomaston.
Walker	R. D. Love, La Fayette.
Walton	J. W. Clegg, Monroe.
Ware	Charles Pittman, Waycross.
Warren	R. V. Swain, Warrenton.
Washington	David Harrison, Sandersville.
Wayne	B. D. Purcell, Jesup.
Webster	J. F. Colbert, Preston.
Wheeler	W. G. Hartley, Alamo.
White	T. V. Cantrell, jr., Cleveland.
Whitfield	Jas. J. Copeland, Dalton.
Wilcox	J. S. Cook, Pineview.
Wilkes	C. H. Calhoun, Washington.
Wilkinson	Victor Davidson, Irwinton.
Worth	Boyd L. Jones, Sylvester.
IDAHO.	
Ada	Lulu E. Vance, Boise.
Adams	Mrs. Maude Gregg, Council.
Bannock	Bertha L. Atkin, Pocatello.
Bear Lake	Seymour Spencer, Paris.
Benewah	Leila Clifford, St. Maries.
Bingham	Mrs. Grace Faulconer, Blackfoot.
Blaine	Frances Mills, Hailey.
Boise	Clara Ellis, Idaho City.
Bonner	Mrs. Jessie H. Tuck, Sandpoint.
Bonneville	Ella M. Miller, Idaho Falls.

County	County superintendent.
IDAHO—continued.	
Boundary	Caroline W. Flood, Bonners Ferry.
Butte	Mrs. Louisa Pratt, Arco.
Camas	Pearle H. Lamson, Fairfield.
Canyon	Margaret Knowlton, Caldwell.
Cassia	Mae Lowe, Albion.
Clearwater	Hulda Anderson, Orofino.
Custer	Jennie E. Kellcher, Challis.
Elmore	Blanche Skipper, Mountain Home.
Franklin	John Johnson, Preston.
Fremont	Frances Hargis, St. Anthony.
Gem	Ella C. Breshears, Emmett.
Gooding	Myrtle Journey, Gooding.
Idaho	Margaret Sweet, Grangeville.
Jefferson	Katherine Burggraf, Rigby.
Kootenai	R. C. Egbers, Coeur d'Alene.
Latah	Winifred Knepper, Moscow.
Lemhi	Anna C. Barron, Salmon.
Lewis	Retta F. Martin, Nez Perce.
Lincoln	Stella Cook, Shoshone.
Madison	George W. Worthen, Rexburg.
Minidoka	Mrs. Ida E. Sullivan, Rupert.
Nez Perce	Mrs. Minnie H. Faust, Lewiston.
Oneida	James C. Tovey, Malad.
Owyhee	Margaret Duval, Silver City.
Payette	Fae Hinkley, Payette.
Power	Mrs. Harriett M. Wilson, American Falls.
Shoshone	Florence Coughlin, Wallace.
Teton	Cecil W. Price, Driggs.
Twin Falls	Miss Brittomart Wolfe, Twin Falls.
Valley	Mrs. Tirza J. Wayland, Cascade.
Washington	Olive M. Petrashek, Weiser.
ILLINOIS.	
Adams	John H. Steiner, Quincy.
Alexander	Laura I. Milford, Cairo.
Bond	J. W. Anthony, Greenville.
Boone	Elizabeth B. Harvey, Belvidere.
Brown	C. W. Sellars, Mount Sterling.
Bureau	G. O. Smith, Princeton.
Calhoun	S. J. Sibley, Hardin.
Carroll	John Hay, Mount Carroll.
Cass	Walter E. Buck, Virginia.
Champaign	Charles H. Watts, Urbana.
Christian	H. L. Fowkes, Taylorville.
Clark	Harold Bright, Marshall.
Clay	G. O. Lewis, Louisville.
Clinton	Wm. Johnston, Carlyle.
Coles	O. L. Minter, Charleston.
Cook	E. J. Tobin, Chicago (C. H.).
Crawford	James T. Athey, Robinson.
Cumberland	L. C. Markwell, Toledo.
Dekalb	W. W. Coultas, Sycamore.
Dewitt	John L. Costley, Clinton.
Douglas	E. E. Gere, Tuscola.
Dupage	R. T. Morgan, Wheaton.
Edgar	O. Rice Jones, Paris.
Edwards	Grant Balding, Albion.
Effingham	J. W. Davis, Effingham.
Fayette	F. E. Crawford, Vandalia.
Ford	H. M. Rudolph, Paxton.
Franklin	H. Clay Ing, Benton.
Fulton	M. M. Cook, Lewiston.
Gallatin	J. L. Greenlee, Equality.
Greene	Rollins L. Scott, Carrollton.
Grundy	C. H. Root, Morris.
Hamilton	W. W. Daily, McLeansboro.
Hancock	S. D. Faris, Carthage.
Hardin	Hattie M. Rittenhouse, Elizabethtown.
Henderson	Allen L. Beall, Oquawka.
Henry	A. L. Odenweller, Cambridge.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
ILLINOIS—contd.	
Iroquois	F. A. Gilbreath, Watseka.
Jackson	Otto F. Aken, Murphysboro.
Jasper	E. B. Brooks, Newton.
Jefferson	Charles F. Lee, Mount Vernon.
Jersey	Joseph W. Becker, Jerseyville.
Jo Daviess	B. L. Birkbeck, Galena.
Johnson	Emma Rebman, Vienna.
Kane	E. A. Ellis, Geneva.
Kankakee	S. D. Saltzgiver, Kankakee.
Kendall	George Elliott, Bristol.
Knox	W. F. Boyes, Galesburg.
Lake	T. A. Simpson, Waukegan.
La Salle	W. R. Foster, Ottawa.
Lawrence	Ed. Ashbaugh, Lawrenceville.
Lee	L. W. Miller, Dixon.
Livingston	W. E. Herbert, Pontiac.
Logan	E. H. Lukenbill, Lincoln.
McDonough	B. E. Decker, Macomb.
McHenry	A. M. Shelton, Crystal Lake.
McLean	B. C. Moore, Bloomington.
Macon	Mary W. Moore, Decatur.
Macoupin	George W. Solomon, Carlinville.
Madison	H. T. McCrea, Edwardsville.
Marion	M. A. Thrasher, Salem.
Marshall	E. P. Nichols, Lacon.
Mason	John Mehlhop, Havana.
Massac	W. A. Spence, Metropolis.
Menard	Mrs. E. B. Batterton, Petersburg.
Mercer	C. L. Gregory, Aledo.
Monroe	William C. Heyl, Waterloo.
Montgomery	Everett A. Lewey, Hillsboro.
Morgan	H. H. Vasconcellos, Jacksonville.
Moultrie	V. D. Roughton, Sullivan.
Ogle	J. E. Cross, Oregon.
Peoria	J. A. Hayes, Peoria.
Perry	Elmo W. Lee, Pinckneyville.
Piatt	Chas. McIntosh, Monticello.
Pike	John N. Clark, Pittsfield.
Pope	R. R. Randolph, Golconda
Pulaski	May S. Hawkins, Mound City.
Putnam	W. A. Paxson, Hennepin.
Randolph	L. W. Von Behren, Evansville.
Richland	Elmer Van Arsdall, Olney.
Rock Island	Lou M. Harris, Rock Island.
Saline	B. D. Gates, Harrisburg.
Sangamon	E. C. Pruitt, Springfield.
Schuyler	Calvin L. Cain, Rushville.
Scott	John P. Ward, Winchester.
Shelby	Lee W. Frazer, Shelbyville.
Stark	G. C. Baker, Toulon.
St. Clair	W. A. Hough, Belleville.
Stephenson	Cyrus Grove, Freeport.
Tazewell	Ben L. Smith, Pekin.
Union	Charles O. Otrich, Jonesboro.
Vermilion	Otis P. Haworth, Danville.
Wabash	W. H. Wetzel, Mount Carmel.
Warren	J. D. Regan, Monmouth.
Washington	Lee A. Friend, Nashville.
Wayne	J. B. Galbraith, Fairfield.
White	Charles H. Mossberger, Carmi.
Whiteside	H. B. Price, Morrison.
Will	F. M. Muhlig, Joliet.
Williamson	J. W. McKinney, Marion.
Winnebago	Mrs. Abbie Jewett Craig, Rockford.
Woodford	Roy L. Moore, Eureka.
INDIANA.	
Adams	E. S. Christen, Decatur.
Allen	D. O. McComb, Fort Wayne.
Bartholomew	Samuel Sharp, Columbus.
Benton	M. F. O'Rear, Fowler.
Blackford	M. C. Townsend, Hartford City.
Boone	E. M. Servies, Lebanon.
Brown	Grover G. Brown, Nashville.

County.	County superintendent.
INDIANA—contd.	
Carroll	T. W. Armstrong, Delphi.
Cass	J. E. Ludders, Logansport.
Clark	Saml. L. Scott, Jeffersonville.
Clay	Willis E. Akre, Brazil,
Clinton	M. D. Boulden, Frankfort.
Crawford	H. W. Toney, English.
Daviess	J. E. Gilley, Washington.
Dearborn	Geo. C. Cole, Lawrenceburg.
Decatur	James R. Crawley, Greensburg.
Dekalb	F. M. Merica, Auburn.
Delaware	Ernest J. Black, Muncie.
Dubois	Robert E. Eckert, Jasper.
Elkhart	A. E. Weaver, Goshen.
Fayette	E. Earl Lines, Connersville.
Floyd	Glenn V. Scott, New Albany.
Fountain	Guy A. Waldrip, Covington.
Franklin	James A. Fisher, Brookville.
Fulton	Thomas F. Berry, Rochester.
Gibson	Leland S. Cunningham, Princeton.
Grant	Charles H. Terrell, Marion.
Greene	Walter T. Brown, Bloomfield.
Hamilton	Walter Harger, Noblesville.
Hancock	G. J. Richman, Greenfield.
Harrison	A. O. Deweese, Corydon.
Hendricks	J. P. Snodgrass, Danville.
Henry	H. B. Roberts, Newcastle.
Howard	Albert F. Hutson, Kokomo.
Huntington	C. Funderburg, Huntington.
Jackson	Harry B. Henderson, Brownstown.
Jasper	Morgan L. Sterrett, Rensselaer.
Jay	W. R. Armstrong, Portland.
Jefferson	W. Guy Pender, Madison.
Jennings	S. E. Whitcomb, Vernon.
Johnson	W. J. Yount, Franklin.
Knox	E. N. Haskins, Vincennes.
Kosciusko	Jesse Bruner, Warsaw.
Lagrange	Arthur B. Cookerly, Lagrange.
Lake	F. H. Heighway, Crown Point.
Laporte	Fred R. Farnam, Laporte.
Lawrence	Wm. C. Roberts, Bedford.
Madison	J. W. Frazier, Anderson.
Marion	Lee E. Swails, Indianapolis.
Marshall	Floyd M. Annis, Plymouth.
Martin	C. O. Williams, Shoals.
Miami	Dorph H. Brown, Peru.
Monroe	W. H. Jones, Bloomington.
Montgomery	Karl C. James, Crawfordsville.
Morgan	Lewis Williams, Martinsville.
Newton	W. O. Schanlaub, Kentland.
Noble	Guy R. Hall, Albion.
Ohio	John L. Wessler, Rising Sun.
Orange	Jesse M. Trinkle, Paoli.
Owen	Albert Free, Spencer.
Parke	John H. Jollief, Rockville.
Perry	Lee B. Mullen, Cannelton.
Pike	Howard Brenton, Winslow.
Porter	Fred H. Cole, Valparaiso.
Posey	G. E. Behrens, Mount Vernon.
Pulaski	W. E. Tennell, Winamac.
Putnam	Frank Wallace, Greencastle.
Randolph	Lee L. Driver, Winchester.
Ripley	C. R. Hertenstein, Versailles.
Rush	C. M. George, Rushville.
Scott	W. S. Griffith, Scottsburg.
Shelby	W. Everson, Shelbyville.
Spencer	J. W. Strassell, Rockport.
Starke	J. Allen Barr, Knox.
St. Joseph	Ralph Longfield, South Bend.
Steuben	H. Lyle Shank, Angola.
Sullivan	Richard Park, Sullivan.
Switzerland	Ernest Danglade, Vevay.
Tippecanoe	C. V. Peterson, La Fayette.
Tipton	Elmer L. Mitchell, Tipton.
Union	Chas. C. Abernethy, Liberty.
Vanderburg	K. W. Hemmer, Evansville.
Vermilion	R. H. Valentine, Newport.
Vigo	J. M. Propst, Terre Haute.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
INDIANA—contd.	
Wabash	A. B. Oswalt, Wabash.
Warren	Harry Evans, Williamsport.
Warrick	Ivor J. Robinson, Boonville.
Washington	Orra Hopper, Salem.
Wayne	C. O. Williams, Richmond.
Wells	A. R. Huyette, Bluffton.
White	Henry J. Reid, Monticello.
Whitley	A. R. Fleck, Columbia City.
IOWA.	
Adair	Minerva Whittum, Greenfield.
Adams	Anna Lynam, Corning.
Allamakee	W. L. Peck, Waukon.
Appanoose	Janet Wilson, Centerville.
Audubon	Ella M. Stearns, Audubon.
Benton	Della Lutes, Vinton.
Black Hawk	H. C. Moeller, Waterloo.
Boone	Gracia E. Tucker, Boone.
Bremer	May E. Francis, Waverly.
Buchanan	A. E. Jewett, Independence.
Buena Vista	A. E. Harrison, Storm Lake.
Butler	E. B. Hodges, Allison.
Calhoun	Jeanette Lewis, Rockwell City.
Carroll	George Galloway, Carroll.
Cass	Jennie M. Ward, Atlantic.
Cedar	Mildred R. Yule, Tipton.
Cerro Gordo	Fred D. Cram, Mason City.
Cherokee	Margaret Montgomery, Cherokee.
Chickasaw	Alf Vaala, New Hampton.
Clarke	Bessie Hart, Osceola.
Clay	D. M. Odle, Spencer.
Clayton	Carl F. Becker, Elkader.
Clinton	C. E. Cozzens, Clinton.
Crawford	F. N. Olry, Denison.
Dallas	May A. Hills, Adel.
Davis	H. C. Brown, Bloomfield.
Decatur	Kate Hull, Leon.
Delaware	W. A. Ottilie, Manchester.
Des Moines	Wm. Dunlavey, Burlington.
Dickinson	F. S. Willey, Spirit Lake.
Dubuque	Joseph Flynn, Dubuque.
Emmet	Marie Sorum, Estherville.
Fayette	N. J. Breckner, West Union.
Floyd	Mary D. Korinke, Charles City.
Franklin	Harry J. Henderson, Hampton.
Fremont	Edith Anderson, Sidney.
Greene	H. C. Roelofsz, Jefferson.
Grundy	D. R. Earl, Grundy Center.
Guthrie	I. M. Boggs, Guthrie Center.
Hamilton	E. F. Snow, Webster City.
Hancock	J. R. Baggs, Garner.
Hardin	Blanche Stoddard, Eldora.
Harrison	Marie Case, Logan.
Henry	Carolyn Campbell, Mount Pleasant.
Howard	Zina Fessenden, Cresco.
Humboldt	Clarence Messer, Humboldt.
Ida	Julia Jacobs, Ida Grove.
Iowa	G. A. Yoakum, Marengo.
Jackson	E. R. Stoddard, Maquoketa.
Jasper	Lucy E. Hall, Newton.
Jefferson	June Chidester, Fairfield.
Johnson	N. E. Hessenius, Iowa City.
Jones	Kate Maurice, Anamosa.
Keokuk	Harry S. McVicker, Sigourney.
Kossuth	Wm. Shirley, Algona.
Lee	E. C. Lynn, Donnellson.
Linn	Lula B. Secrist, Marion.
Louisa	Myrtle Jamison, Wapello.
Lucas	Myrtle A. Dungan, Chariton.
Lyon	E. T. Gilman, Rock Rapids.
Madison	Carrie E. Ludlow, Winterset.
Mahaska	A. E. Jones, Oskaloosa.
Marion	Mae Goldizen, Knoxville.
Marshall	C. E. Shutt, Marshalltown.
Mills	Geo. E. Masters, Glenwood.
Mitchell	Blanche M. Laughlin, Osage.
Monona	Ella M. Gardner, Onawa.
Monroe	Myrta Harlow, Albia.
Montgomery	Elizabeth Hugus, Red Oak.
Muscatine	E. D. Bradley, Muscatine.
O'Brien	J. J. Billingsly, Primghar.
Osceola	Mary E. De Boos, Sibley.
Page	Agnes Samuelson, Clarinda.
Palo Alto	Florence Underwood, Emmetsburg.
Plymouth	Erna H. Plath, Le Mars.
Pocahontas	Grace D. Bradshaw, Pocahontas.
Polk	Mrs. H. Huffman, Des Moines.
Pottawattamie	Charlotte Dryden, Council Bluffs.
Poweshiek	Estelle Coon, Brooklyn.
Ringgold	Louise Askren, Mount Ayr.
Sac	P. A. Lauterbach, Sac City.
Scott	Henry E. Ronge, Davenport.
Shelby	Rose M. Parker, Harlan.
Sioux	Charles H. Tye, Orange City.
Story	Maude Wakefield, Nevada.
Tama	Mary A. Richards, Toledo.
Taylor	Allie Nelson, Bedford.
Union	William Bell, Creston.
Van Buren	H. B. Carroll, Keosauqua.
Wapello	R. L. Gardner, Ottumwa.
Warren	W. M. McGee, Indianola.
Washington	Katherine Stichter, Washington.
Wayne	Ava Amenell, Corydon.
Webster	Anna Johnson, Fort Dodge.
Winnebago	Jessie Parker, Forest City.
Winneshiek	H. E. Miller, Decorah.
Woodbury	J. F. Garnes, Sioux City.
Worth	O. L. Varland, Northwood.
Wright	Blanche Bork, Clarion.
KANSAS.	
Allen	Lavonia M. Donica, Iola.
Anderson	Josie Henderson, Garnett.
Atchison	D. Anna Speer, Atchison.
Barber	Lola Lichlyter, Medicine Lodge.
Barton	W. L. Bowersox, Great Bend.
Bourbon	May Hare, Fort Scott.
Brown	Alma McAtee, Hiawatha.
Butler	H. I. French, El Dorado.
Chase	Katherine Montgomery, Cottonwood Falls.
Chautauqua	Carrie Belmon, Sedan.
Cherokee	G. A. Sanders, Columbus.
Cheyenne	Robert Cram, St. Francis.
Clark	Maggie M. Myers, Ashland.
Clay	Mrs. Sue Hemphill, Clay Center.
Cloud	Jane Collins, Concordia.
Coffey	Cora E. Arnold, Burlington.
Comanche	Mary Willard, Coldwater.
Cowley	Edna L. Johnson, Winfield.
Crawford	J. W. Miley, Girard.
Decatur	Elwood M. Brooks, Oberlin.
Dickinson	Mary E. Woolverton, Abilene.
Doniphan	C. R. Hewins, Troy.
Douglas	O. J. Lane, Lawrence.
Edwards	Mary Mullikin, Kinsley.
Elk	H. A. Gilmore, Howard.
Ellis	Louis Christiansen, Hays.
Ellsworth	H. Coover, Ellsworth.
Finney	Emma F. Wilson, Garden City.
Ford	Esther Wilkinson, Dodge City.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
KANSAS—contd.	
Franklin	W. A. Vickers, Ottawa.
Geary	Nora R. Clark, Junction City.
Gove	B. B. Bacon, Gove.
Graham	U. S. Loyd, Hill City.
Grant	Miss Deane Miller, New Ulysses.
Gray	Edith Miller, Cimarron.
Greeley	August Halfman, Tribune.
Greenwood	Mary L. Service, Eureka.
Hamilton	C. W. Noell, Syracuse.
Harper	J. C. Palmer, Anthony.
Harvey	Ruth E. Mitten, Newton.
Haskell	George B. Levitt, Santa Fe.
Hodgeman	Winifred T. Goller, Jetmore.
Jackson	F. R. Palmer, Holton.
Jefferson	Annie Goddard, Oskaloosa.
Jewell	Lula Coyner, Mankato.
Johnson	Zilpah Boone, Olathe.
Kearny	Mrs. India Simmons, Lakin.
Kingman	J. W. Wilson, Kingman.
Kiowa	A. A. Hodges, Greensburg.
Labette	Ida B. Marley, Oswego.
Lane	Wm. T. Caldwell, Dighton.
Leavenworth	E. Voorhees, Leavenworth.
Lincoln	G. H. Hower, jr., Lincoln.
Linn	Maude Hunts, Mound City.
Logan	Malcolm Peterson, Russell Springs.
Lyon	Mrs. Nettie B. Cartmel, Emporia.
McPherson	I. C. Meyer, McPherson.
Marion	J. A. Ray, Marion.
Marshall	W. H. Seaman, Marysville.
Meade	Ola Granger, Meade.
Miami	Maggie Routt, Paola.
Mitchell	Philip Louthan, Beloit.
Montgomery	Ethel A. Gillespie, Independence.
Morris	Flora E. Davis, Council Grove.
Morton	Mrs. W. N. Newby, Richfield.
Nemaha	W. R. Anthony, Seneca.
Neosho	J. A. Cannan, Erie.
Ness	Edna Robison, Ness City.
Norton	Pearl Wyrill, Norton.
Osage	C. A. Deardorff, Lyndon.
Osborne	Bertha Yoxall, Osborne.
Ottawa	Miss Lilias Mortimer, Minneapolis.
Pawnee	Bertha Pruett, Larned.
Phillips	Olive L. Thomas, Phillipsburg.
Pottawatomie	R. C. Walden, Westmoreland.
Pratt	L. Grace Heaton, Pratt.
Rawlins	Bert Kesselring, Atwood.
Reno	S. P. Rowland, Hutchinson.
Republic	Mary Jansky, Belleville.
Rice	Bertha McCabe, Lyons.
Riley	Reppie Carey, Manhattan.
Rooks	Jennie Walsh, Stockton.
Rush	E. A. Kirkpatrick, La Crosse.
Russell	Caleb Bodmer, Russell.
Saline	W. H. Stewart, Salina.
Scott	Genevieve Lancaster, Scott.
Sedgwick	R. M. Crum, Wichita.
Seward	Emma Thompson, Liberal.
Shawnee	M. Edna Corbett, Topeka.
Sheridan	Warner Johnson, Hoxie.
Sherman	Nona Stewart, Goodland.
Smith	Wm. McMullen, Smith Center.
Stafford	Anna M. Beck, St. John.
Stanton	Nellie Craig, Johnson.
Stevens	Mary Burns, Hugoton.
Sumner	John R. Brooks, Wellington.
Thomas	Alice Bieber, Colby.
Trego	Mrs. Minnie O'Niel, Wakeeney.
Wabaunsee	Annie G. Crouch, Alma.
Wallace	Rose Gilbert, Sharon Springs.
Washington	Millie Spence-Gillett, Washington.
Wichita	P. E. Metheney, Leoti.
Wilson	Fannie Lyon, Fredonia.
Woodson	Elizabeth T. Spencer, Yates Center.
Wyandotte	Olive I. Thompson, Kansas City.
KENTUCKY.	
Adair	Noah Loy, Columbia.
Allen	N. S. Shaw, Scottsville.
Anderson	T. J. Leathers, Lawrenceburg.
Ballard	J. E. Lane, Wickliffe.
Barren	W. M. Totty, Glasgow.
Bath	R. W. Kincaid, Owingsville.
Bell	John Hays, Pineville.
Boone	J. C. Gordon, Burlington.
Bourbon	J. B. Caywood, Paris.
Boyd	B. B. Triplett, Catlettsburg.
Boyle	Oscar B. Fallis, Danville.
Bracken	Nannie Hancock, Brooksville.
Breathitt	Fallen Campbell, Jackson.
Breckinridge	J. Raleigh Meader, Hardinsburg.
Bullitt	Ora L. Roby, Shepherdsville.
Butler	C. E. Gary, Morgantown.
Caldwell	H. W. Nichols, Princeton.
Calloway	R. E. Broach, Murray.
Campbell	J. W. Reiley, Alexandria.
Carlisle	N. J. Parsons, Bardwell.
Carroll	Clay Tharp, Carrollton.
Carter	Lelia B. Wilcox, Grayson.
Casey	E. L. Cundiff, Liberty.
Christian	L. E. Foster, Hopkinsville.
Clark	Nancy Stevenson, Winchester.
Clay	Davis M. Allen, Manchester.
Clinton	J. O. Cole, Albany.
Crittenden	James L. F. Paris, Marion.
Cumberland	Cora S. Payne, Burkesville.
Daviess	John L. Graham, Owensboro.
Edmonson	W. A. Pardue, Brownsville.
Elliott	Wales S. Brown, Sandy Hook.
Estill	E. S. Land, Irvine.
Fayette	Nannie G. Faulconer, Lexington.
Fleming	M. N. Evans, Flemingsburg.
Floyd	Tilden Collins, Prestonburg.
Franklin	L. D. Stucker, Frankfort.
Fulton	Virginia Luten, Hickman.
Gallatin	Rosa B. Wood, Warsaw.
Garrard	Jennie Higgins, Lancaster
Grant	B. N. Harrison, Williamstown.
Graves	J. E. Coleman, Mayfield.
Grayson	Effie Sadler, Leitchfield.
Green	Myrtie F. Howard, Greensburg.
Greenup	J. Howard Hatfield, Greenup.
Hancock	J. H. Lamb, Hawesville.
Hardin	J. A. Payne, Elizabethtown.
Harlan	A. C. Jones, Harlan.
Harrison	B. F. Kearns, Cynthiana.
Hart	R. E. Jaggers, Munfordville.
Henderson	E. B. Liles, Henderson.
Henry	Hallie Ellis Pope, Newcastle.
Hickman	J. W. Brinkley, Clinton.
Hopkins	L. R. Ray, Madisonville.
Jackson	H. F. Minter, McKee.
Jefferson	Orville J. Stivers, Louisville.
Jessamine	C. C. Sandusky, Nicholasville.
Johnson	Fred Meade, Paintsville.
Kenton	J. C. Mills, Erlanger.
Knott	Adam Campbell, Hindman.
Knox	E. B. Hemphill, Barbourville.
Larue	Sara Castleman McConnell, Hodgenville.
Laurel	D. B. Johnson, London.
Lawrence	J. H. Ekers, Louisa.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
KENTUCKY—contd.	
Lee	J. P. Thomas, Beattyville.
Leslie	Mary Hoskins, Hyden.
Letcher	E. B. Hale, Whitesburg.
Lewis	J. Q. Adams, Vanceburg.
Lincoln	Garland Singleton, Stanford.
Livingston	H. D. Millen, Smithland.
Logan	R. N. Beauchamp, Russellville.
Lyon	N. G. Martin, Eddyville.
Madison	Ben F. Edwards, Richmond.
Magoffin	J. S. Adams, Salyersville.
Marion	J. W. Clarkson, Lebanon.
Marshall	Harry W. Peters, Benton.
Martin	U. G. Johnson, Inez.
Mason	G. H. Turnipseed, Maysville.
McCracken	M. V. Miller, Paducah.
McCreary	J. L. Harmon, Whitley City.
McLean	Wallace T. Bennett, Calhoun.
Meade	L. H. Powell, Brandenburg.
Menifee	W. O. Back, Frenchburg.
Mercer	Ora L. Adams, Harrodsburg.
Metcalfe	R. A. Palmore, Edmonton.
Monroe	S. C. Ray, Tompkinsville.
Montgomery	Georgia V. Sledd, Mount Sterling.
Morgan	Bernard E. Whitt, West Liberty.
Muhlenberg	V. M. Moseley, Greenville.
Nelson	W. T. McClain, Bardstown.
Nicholas	Eda S. Taylor, Carlisle.
Ohio	E. S. Howard, Hartford.
Oldham	J. W. Selph, La Grange.
KENTUCKY—contd.	
Owen	O. V. Jones, Owenton.
Owsley	A. J. Creech, Booneville.
Pendleton	John E. Drake, Falmouth.
Perry	J. C. Napier, Hazard.
Pike	Fonzo Wright, Pikeville.
Powell	Dudley Caudell, Stanton.
Pulaski	Leonard E. Meece, Somerset.
Robertson	Cleveland Moore, Mount Olivet.
Rockcastle	Alice Davis, Mount Vernon.
Rowan	J. H. Powers, Morehead.
Russell	B. A. Lawless, Jamestown.
Scott	Mary Bradley, Georgetown.
Shelby	Mrs. M. L. Hall, Shelbyville
Simpson	Alice Adams, Franklin.
Spencer	Katie B. Beauchamp, Taylorsville.
Taylor	Geo. E. Sapp, Campbellsville.
Todd	H. G. Watson, Elkton.
Trigg	Levi Cunningham, Cadiz.
Trimble	Carrie Logan Hood, Bedford.
Union	G. W. Curry, Morganfield.
Warren	Eugenia Roemer, Bowling Green.
Washington	C. B. Bottom, Springfield.
Wayne	Hattie Denney, Monticello.
Webster	Thos. W. Johnson, Dixon.
Whitley	Samuel E. Walker, Williamsburg.
Wolfe	Taylor Shockey, Campton.
Woodford	M. B. Hifner, Versailles.

Parish.	Parish superintendent.
LOUISIANA.	
Acadia	J. W. Oxford, Crowley.
Allen	R. G. Corkern, Oberlin.
Ascension	H. P. Broussard, Donaldsonville.
Assumption	S. A. Alleman, Napoleonville.
Avoyelles	J. M. Barham, Marksville.
Baton Rouge: East	W. B. Hatcher, Baton Rouge.
West	J. H. Bres, Port Allen.
Beauregard	L. D. McCollister, De Ridder.
Bienville	E. H. Fisher, Arcadia.
Bossier	W. A. Fortson, Benton.
Caddo	C. E. Byrd, Shreveport.
Calcasieu	F. K. White, Lake Charles.
Caldwell	E. B. Cottingham, Columbia.
Cameron	T. W. McCall, Grand Chenier.
Carroll: East	Ward Anderson, Lake Providence.
West	W. McG. Dollerhide, Pioneer.
Catahoula	H. W. Wright, Harrisonburg.
Claiborne	J. H. Davidson, Homer.
Concordia	D. C. Strickler, Vidalia.
De Soto	G. O. Houston, Mansfield.
Evangeline	E. E. Ortego, Ville Platte.
Feliciana: East	E. R. Waller, Clinton.
West	R. E. Crump, St. Francisville.
Franklin	J. L. McDuff, Winnsboro.
Grant	J. N. Warner, Pollock.
Iberia	L. A. Walet, New Iberia.
Iberville	L. E. Messick, Plaquemine.
Jackson	R. L. Dickerson, Jonesboro.
Jefferson	J. C. Ellis, Gretna.
Jefferson Davis	W. P. Arnette, Jennings.
Lafayette	L. J. Alleman, Lafayette.
LOUISIANA—contd.	
Lafourche	W. S. Lafargue, Thibodaux.
La Salle	W. T. Hodges, Jena.
Lincoln	D. G. Armstrong, Ruston.
Livingston	J. E. Coxe, Denham Springs.
Madison	J. R. Linton, Tallulah.
Morehouse	S. A. Caldwell, Bastrop.
Natchitoches	L. E. Hudson, Natchitoches.
Orleans	J. M. Gwinn, New Orleans.
Ouachita	T. O. Brown, Monroe.
Plaquemines	J. C. Blanchard, Pointe a la Hache.
Pointe Coupee	Alonzo McFarland, New Roads.
Rapides	C. C. Henson, Alexandria.
Red River	A. H. Horton, Coushatta.
Richland	E. E. Keebler, Rayville.
Sabine	W. S. Mitchell, Many.
St. Bernard	Clement Story, New Orleans.
St. Charles	J. B. Martin, Hahnville.
St. Helena	W. E. Phillips, Greensburg.
St. James	J. N. Gourdain, Convent.
St. John the Baptist	L. F. Laurent, Edgard.
St. Landry	W. B. Prescott, Opelousas.
St. Martin	F. O. Chavez, St. Martinville.
St. Mary	Charles Gott, Franklin.
St. Tammany	E. E. Lyon, Covington.
Tangipahoa	A. C. Lewis, Amite.
Tensas	T. M. Wade, St. Joseph.
Terrebonne	H. L. Bourgeois, Houma.
Union	T. A. Green, Farmerville.
Vermilion	J. H. Williams, Abbeville.
Vernon	Finly Stanly, Leesville.
Washington	D. H. Springfield, Franklinton.
Webster	T. W. Fuller, Minden.
Winn	J. J. Mixon, Winnfield.

XII.—County and Other Local Superintendents of Schools—Continued.

Towns in Union.	Union superintendent.
MAINE.[1]	
Abbot, Blanchard, Elliottsville Pl., Kingsbury Pl., Monson, Wilimantic.	William E. Hebard, Carmel.
Acton, Lebanon, Newfield, Shapleigh.	George M. D. Grant, East Lebanon.
Addison, Centerville, Jonesboro, Jonesport.	D. H. Corson, Jonesport.
Albany, Lovell, Stoneham, Sweden.	A. B. Garcelon, North Lovell.
Albion, Burnham, Troy, Unity, Unity Pl.	Naomi T. Gregoire, Unity.
Alexander, Crawford, Grand Lake Str. Pl., No. 21 Pl. (Wash.), Princeton, Talmadge, Waite, Codyville Pl., Topsfield.	Charles H. Swan, Princeton.
Alfred, Sanford	Ralph P. Mitchell, Sanford.
Allagash Pl., Fort Kent, St. Francis Pl., St. John Pl.	Joseph F. Cyr, Fort Kent.
Alna, Dresden, Edgecomb, Pittston, Wiscasset.	Leslie A. Bailey, Dresden.
Alton, Argyle, Lagrange, Medford, Orneville.	Mrs. Kit B. Comstock, Oldtown R. 1.
Amherst, Aurora, Clifton, Mariaville, No. 21 Pl., No. 33 Pl., Otis, Waltham.	Carolyn B. Silsby, Amherst.
Amity, Cary Pl., Hodgdon, Linneus.	W. E. Finch, Hodgdon.
Andover, Byron, Mexico, Roxbury.	S. J. Rawson, Ridlonville.
Anson, Bingham, Embden, Solon.	Mrs. L. A. Bradbury, North Anson.
Appleton, Liberty, Palermo, Washington.	Albert F. Barnes, Liberty.
Arrowsic, Georgetown, Phippsburg, Westport, Woolwich.	Clara M. Reed, Woolwich.
Ashland, Garfield Pl., Masardis, Nashville Pl., Oxbow Pl., Portage Lake.	A. L. Shorey, Ashland.
Athens, Brighton Pl., Cambridge, Cornville, Harmony.	Carl T. Rhoades, Harmony.
Atkinson, Bradford, Charleston, Corinth, Kenduskeag.	H. E. Fortier, Charleston.
Avon, Freeman, Phillips, Salem, Strong.	Stephen T. Marshall, Strong.
Baileyville, Baring, Calais.	W. H. Phinney, Calais.
Baldwin, Hiram, Sebago	Celia H. Sanborn, East Hiram.
Bancroft, Drew Pl., Glenwood Pl., Haynesville, Kingman, Macwahoc Pl., Reed Pl.	Joseph W. Hamlin, Kingman.
Barnard Pl., Brownville, Lake View Pl., Milo, Williamsburg.	Foster L. Higgins, Milo.
Bath, West Bath	G. A. Stuart, Bath.
Beddington, Cherryfield, Columbia Falls, Deblois, Steuben.	Frances C. Jewett, Cherryfield.
Belfast, Searsport	E. E. Roderick, Belfast.
Belgrade, Fayette, Mount Vernon, Readfield.	Ralph G. Oakes, Mount Vernon.
Belmont, Lincolnville, Morrill, Northport, Searsmont.	Lena Rankin, Lincolnville.
Benedicta, Hersey, Mount Chase, Patten, Staceyville Pl.	A. L. Todd, Patten.
MAINE—continued.	
Benton, Fairfield	W. M. Teague, Fairfield.
Berwick, Eliot, South Berwick.	W. C. McCue, Berwick.
Bethel, Gilead, Greenwood, Mason.	Charles E. Lord, Bethel.
Bigelow Pl., Coplin Pl., Dead River Pl., Eustis, Flagstaff Pl., Lang Pl.	Howard Gilpatrick, Stratton.
Blaine, Bridgewater, E. Plantation, Mars Hill, Monticello.	T. A. DeCosta, Mars Hill.
Bluehill, Brooklin, Sedgwick.	E. L. Linscott, Bluehill.
Boothbay, Boothbay Harbor, Monhegan Pl., Southport.	Walter L. Mason, Boothbay Harbor.
Bowdoin, Bowdoinham, Richmond.	E. R. Bowdoin, Richmond.
Bowerbank, Dover, Foxcroft, Sebec.	Wm. M. Bottomley, Foxcroft.
Bradley, Greenbush, Greenfield, Milford, Passadumkeag.	Gertrude E. Gifford, Olamon.
Bremen, Nobleboro, Waldoboro.	V. V. Thompson, Waldoboro.
Brewer, Eddington, Holden, Veazie.	F. W. Burrill, Brewer.
Bridgton, Harrison, Naples.	E. E. Russell, Bridgton.
Bristol, Damariscotta, Newcastle, South Bristol.	Julia E. Barker, Damariscotta.
Brooks, Jackson, Monroe, Swanville, Waldo.	Ernest L. Toner, Brooks.
Brooksville, Castine, Penobscot, Islesboro.	D. W. Rollins, Castine.
Brookton, Danforth, Forest City, Orient, Vanceboro, Weston.	J. F. Philbrook, Danforth.
Brownfield, Denmark, Fryeburg, Stow.	C. L. Clement, Fryeburg.
Brunswick, Topsham	John A. Cone, Brunswick.
Buckfield, Hartford, Hebron, Sumner.	C. C. Tuttle, Buckfield.
Bucksport, Orland, Orrington, Verona.	Abbie E. Buck, Orland.
Burlington, Edinburg, Enfield, Grand Falls Pl., Howland, Lowell, Maxfield, Sebocis Pl.	Edward A. Simoneau, Howland.
Buxton, Hollis, Standish.	Fred Benson, West Buxton.
Camden, Hope, Thomaston.	B. E. Packard, Camden.
Canaan, Clinton, Pittsfield.	W. E. Stuart, Pittsfield.
Canton, Livermore	F. E. Fortier, Canton.
Cape Elizabeth, South Portland.	Simon M. Hamlin, South Portland.
Caratunk Pl., Concord, Mayfield Pl., Moscow, Pleasant Ridge Pl., The Forks Pl., West Forks Pl.	Charles E. Ball, Bingham.
Caribou, Limestone	C. A. Grant, Caribou.
Carmel, Dixmont, Etna, Newberg.	W. E. Hebard, Carmel.
Carroll, Lakeville Pl., Lee, Prentiss, Springfield, Webster Pl.	G. H. Jewett, Springfield.
Carthage, Dixfield, Peru, Weld.	P. M. Cooper, Dixfield.
Casco, Otisfield, Raymond.	Gardiner W. Cole, Casco.
Castle Hill, Chapman, Mapleton.	Elmer H. Webber, Mapleton.
Caswell Pl., Connor, Cyr Pl., Hamlin Pl., Van Buren.	Charles L. O'Connell, Van Buren.

[1] Practically all city superintendents have supervision over some rural schools. See also p. 78.

XII.—County and Other Local Superintendents of Schools—Continued.

Towns in Union.	Union superintendent.
MAINE—continued.	
Charlotte, Cooper, Dennysville, Edmunds, Marion, Meddybemps, No. 14 Pl., Pembroke.	Ira B. Knight, West Pembroke.
Chelsea, Jefferson, Somerville, Whitefield, Windsor.	Raymond C. Beale, Whitefield.
Chester, Lincoln, Mattawamkeag, Winn, Woodville.	S. M. Nieveen, Mattawamkeag.
Chesterville, Industry, New Sharon, Vienna.	F. J. McAuliffe, New Sharon.
China, Vassalboro, Winslow.	George E. Paine, Winslow.
Columbia, Harrington, Milbridge.	Karl D. Lee, Harrington.
Corinna, Detroit, Newport, Plymouth.	Clifton E. Wass, Newport.
Cornish, Limington, Parsonsfield, Porter.	I. J. Merry, Cornish.
Cranberry Isles, Mount Desert, Southwest Harbor, Tremont.	W. E. Clark, Southwest Harbor.
Crichaven Pl., Matinicus Isle Pl., Union, Warren.	F. D. Rowe, Warren.
Crystal, Island Falls, Sherman, Silver Ridge Pl.	George C. Hight, Island Falls.
Cumberland, Falmouth, North Yarmouth.	D. W. Lunt, Portland, R. 4.
Cushing, Friendship, St. George, South Thomaston.	Harry C. Hull, Thomaston.
Cutler, Lubec, Trescott, Whiting.	M. E. Wright, Cutler.
Dallas Pl., Madrid, Rangeley, Rangeley Pl., Sandy River Pl.	J. M. Pike, Rangeley.
Dayton, North Kennebunkport, Saco.	T. T. Young, Saco.
Dedham, Ellsworth, Surry.	W. H. Patten, Ellsworth.
Deer Isle, Isle au Haut, Stonington.	John Paton, Deer Isle.
Dennistown Pl., Greenville, Jackman Pl., Long Pond Pl., Moose River Pl., Shirley.	Russell S. Taylor, Greenville.
Dexter, Garland, Ripley.	Jas. A. Hamlin, Dexter.
Durham, Lisbon, Webster.	A. R. Carter, Lisbon Falls.
Dyer Brook, Ludlow, Merrill, Moro Pl., New Limerick, Oakfield, Smyrna.	E. C. Vining, Smyrna Mills.
Eagle Lake, New Canada Pl., Wallagrass Pl., Winterville Pl.	Vital J. Labbe, Eagle Lake.
Eastbrook, Franklin, Hancock, Lamoine.	E. S. Higgins, Franklin.
East Livermore, Wayne.	John H. Carter, Livermore Falls.
East Machias, Machias, Machiasport, Marshfield, Northfield, Roque Bluffs, Whitneyville.	John C. Merrill, East Machias.
East Millinocket, Medway, Millinocket.	W. M. Marr, Millinocket.
Easton, Fort Fairfield...	C. E. Glover, Fort Fairfield.
Eastport, Perry, Robbinston.	W. H. Sturtevant, Eastport.
Eden, Trenton.....	Frank McGouldrick, Bar Harbor.
MAINE—continued.	
Exeter, Glenburn, Hudson, Levant, Stetson.	Elmer B. Eddy, Kenduskeag, R. F. D.
Farmingdale, Gardiner, Randolph.	L. A. Ross, Gardiner.
Farmington, New Vineyard, Temple.	Wm. B. Woodbury, Farmington.
Frankfort, Prospect, Stockton Springs, Winterport.	Frederick Nickerson, Frankfort.
Freedom, Knox, Montville, Thorndike.	Mrs. P. W. Berry, Thorndike.
Freeport, Pownal, Yarmouth.	Frank H. Byram, Freeport.
Frenchville, Grand Isle, Madawaska, St. Agatha.	B. S. Dufour, St. Agatha.
Gorham, Westbrook....	R. J. Libby, Westbrook.
Gouldsboro, Sorrento, Sullivan, Winter Harbor.	R. L. Sinclair, West Gouldsboro.
Gray, New Gloucester, Windham.	C. E. Varney, Gray.
Greene, Leeds, Turner..	Bertha Groden, Turner Center.
Guilford, Parkman, Sangerville, Wellington.	Walter J. Rideout, Sangerville.
Hallowell, Manchester, Winthrop.	W. F. Packard, Hallowell.
Hammond Pl., Houlton, Littleton.	T. P. Packard, Houlton.
Hampden, Hermon.....	W. E. Stoddard, Hampden.
Hanover, Milton Pl., Rumford.	L. E. Williams, Rumford.
Hartland, Palmyra, St. Albans.	H. B. Clifford, Hartland.
Highland Pl., Kingfield, Lexington Pl., New Portland.	Frank E. Baldwin, Kingfield.
Jay, Wilton.....	Merton T. Goodrich, Jay.
Kennebunk, Kennebunkport.	Isaac H. Storer, Kennebunk.
Kittery, York.....	E. S. Foster, York.
Limerick, Lyman, Waterboro.	Florent Whitmore, East Waterboro.
Lincoln Pl., Magalloway Pl., Newry, Upton.	Charles S. Hulbert, Upton.
Litchfield, Monmouth, Wales, West Gardiner.	Harriet Fenderson, Litchfield.
Long Island Pl., North Haven, Swans Island, Vinalhaven.	Edward A. Smalley, Vinalhaven.
Madison, Skowhegan....	L. W. Gerrish, Skowhegan.
Mechanic Falls, Minot, Poland.	Harriet M. Spiller, Mechanic Falls.
Mercer, Norridgewock, Smithfield, Starks.	Orlando C. Woodman, Norridgewock.
New Sweden, Stockholm, Westmanland Pl., Woodland.	Clara C. Strom, New Sweden.
North Berwick, Wells...	C. A. Rush, Wells.
Norway, Oxford, Waterford.	True C. Morrill, Norway.
Oakland, Rome, Sidney.	John S. Tapley, Oakland
Old Orchard, Scarboro..	F. H. B. Heald, South Portland, R. 8.
Oldtown, Orono.....	W. O. Chase, Oldtown.
Paris, Woodstock.....	M. C. Joy, South Paris.
Perham, Wade, Washburn.	T. W. McQuaide, Washburn.
Presque Isle, Westfield..	S. E. Preble, Presque Isle.
Rockland, Rockport	R. L. West, Rockland.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.	County.	County superintendent.
MARYLAND.		MARYLAND—contd.	
Allegany	Edward F. Webb, Cumberland.	Howard	W. C. Philips, Ellicott City.
Anne Arundel	George Fox, Annapolis.	Kent	Edward J. Clarke, Chestertown.
Baltimore	A. S. Cook, Towson.	Montgomery	Edwin W. Broome, Rockville.
Calvert	T. G. Bennett, Prince Frederick.	Prince Georges	E. S. Burroughs, Upper Marlboro.
Caroline	E. M. Noble, Denton.	Queen Annes	B. J. Grimes, Centerville.
Carroll	M. S. H. Unger, Westminster.	St. Marys	G. W. Joy, Leonardtown.
Cecil	Hugh W. Caldwell, Elkton.	Somerset	Wm. H. Dashiell, Princess Anne.
Charles	F. Bernard Gwynn, La Plata.	Talbot	Nicholas Orem, Easton.
Dorchester	J. B. Noble, Cambridge.	Washington	Raymond E. Staley, Hagerstown.
Frederick	G. Lloyd Palmer, Frederick.	Wicomico	James M. Bennett, Salisbury.
Garrett	F. E. Rathbun, Oakland.	Worcester	E. W. McMaster, Snow Hill.
Harford	C. M. Wright, Bel Air.		

Towns in union.	Union Superintendent.	Towns in union.	Union Superintendent.
MASSACHUSETTS.[1]		MASSACHUSETTS—contd.	
Acton, Carlisle, Littleton, Westford.	Frank H. Hill, Littleton.	Buckland, Colrain, Shelburne.	C. J. Richards, Shelburne Falls.
Acushnet, Fairhaven, Mattapoisett.	Charles F. Prior, Fairhaven.	Carver, Lakeville, Raynham, Rochester.	Chester W. Humphrey, Rochester.
Agawam, Ludlow	Walter E. Gushee, Ludlow.	Charlemont, Hawley, Heath, Rowe.	Frank P. Davison, Charlemont.
Alford, Egremont, Richmond, West Stockbridge.	Hattie L. Hawley, West Stockbridge.	Charlton, Leicester	George B. Clark, Leicester.
Amherst, Pelham	John D. Brooks, Amherst.	Chatham, Eastham, Harwich, Orleans.	Loring G. Williams, Harwich.
Ashburnham, Winchendon.	Albert J. Chidester, Winchendon.	Cheshire, Hancock, Lanesboro, New Ashford.	Everett G. Loring, Lanesboro.
Ashby, Lunenburg, Townsend.	Herman C. Knight, Townsend.	Chesterfield, Williamsburg, Worthington.	Elbridge W. Goodhue, Haydenville.
Ashfield, Cummington, Goshen, Plainfield.	Charles W. Walker, Ashfield.	Chilmark, Edgartown, Gay Head, Oak Bluffs, Tisbury, West Tisbury.	Robert W. Martin, Vineyard Haven.
Ashland, Hopkinton	Warren B. Lyman, Hopkinton.	Clarksburg, Florida, Monroe, Savoy.	D. F. Carpenter, North Adams.
Auburn, Sutton	R. W. Marton, Worcester.	Conway, Deerfield, Sunderland, Whateley.	Andrew S. Thompson, South Deerfield.
Avon, Holbrook, Randolph.	James J. Quinn, jr., Holbrook.	Dana, Greenwich, New Salem, Prescott.	C. C. Richardson, North Dana.
Ayer, Boylston, Shirley, West Boylston.	Frank C. Johnson, Ayer.	Douglas, Uxbridge	C. L. Judkins, Uxbridge.
Barre, Hardwick, Petersham.	Albert S. Cole, Barre.	Dover, Sudbury, Wayland.	Frank H. Benedict, Cochituate.
Becket, Chester, Middlefield.	William H. Sanderson, Chester.	Dracut, North Reading, Tewksbury, Tyngsborough.	Charles L. Randall, Lowell.
Bedford, Stoneham	Arthur B. Webber, Stoneham.	Dudley, Webster	William F. Sims, Webster.
Belmont, Burlington	George P. Armstrong, Belmont.	Duxbury, Marshfield, Scituate.	Charles A. Crowell, jr., Scituate.
Belchertown, Enfield	Alvin R. Lewis, Belchertown.	East Bridgewater, West Bridgewater.	Edgar H. Grout, East Bridgewater.
Bellingham, Hopedale, Mendon.	Francello G. Atwell, Hopedale.	Easthampton, Southhampton, Westhampton.	William D. Miller, Easthampton.
Berkley, Dighton, Rehoboth.	Mortimer H. Bowman, Dighton.	East Longmeadow, Hampden, Longmeadow, Wilbraham.	Leonora E. Taft, Springfield.
Berlin, Northboro, Shrewsbury, Southboro.	Frederick B. Van Ornum, Northboro.	Erving, Leverett, Shutesbury, Wendell.	Cora A. Stearns, Wendell Depot.
Blackstone, Millville, Seekonk.	Harry E. Gardner, Blackstone.	Essex, Hamilton, Lynnfield, Topsfield, Wenham.	Harvey R. Williams, Wenham.
Blandford, Huntington, Montgomery, Russell.	Melvin J. West, Huntington.	Foxboro, Norton, Plainville.	Ira A. Jenkins, Foxboro.
Bolton, Dunstable, Harvard, Pepperell.	Austin R. Paull, Pepperell.	Franklin, Wrentham	Arthur W. Hale, Franklin.
Bourne, Mashpee, Sandwich.	Herbert L. Whitman, Buzzards Bay.	Freetown, Gosnold, Westport.	Edward Hill, New Bedford.
Boxborough, Maynard, Stow.	W. H. Millington, Maynard.	Georgetown, Groveland, Rowley.	Josiah S. McCann, Groveland.
Brunfield, Monson	Frederic A. Wheeler, Monson.	Gill, Bernardston, Leyden, Northfield, Warwick.	Elmer F. Howard, East Northfield.
Brewster, Dennis, Yarmouth.	Alberto W. Small, Yarmouth.		
Brookfield, North Brookfield.	T. W. King, North Brookfield.		

[1] Practically all city superintendents have supervision over some rural schools. See also pp. 79–80.

XII.—County and Other Local Superintendents of Schools—Continued.

Towns in Union.	Union superintendent.
MASSACHUSETTS—con.	
Grafton, Upton.	
Granby, South Hadley..	Frederick E. Whittemore, South Hadley Falls.
Granville, Sandisfield, Southwick, Tolland.	David J. Malcolm, Granville.
Hadley, Hatfield.	
Halifax, Kingston, Pembroke, Plympton.	Geo. Allen Coe, Kingston.
Hanover, Hanson, Norwell.	Stephen G. Bean, Hanover.
Hinsdale, Peru, Washington, Windsor.	Hermann G. Patt, Hinsdale.
Holden, Oakham, Paxton, Rutland.	J. R. Childs, Holden.
Holland, Wales, Warren.	John Bacon, Warren.
Holliston, Medway, Sherborn.	Carroll H. Drown, West Medway.
Hubbardston, Phillipston, Royalston, Templeton.	Asa M. Jones, Baldwinsville.
Lee, Monterey, Otis, Tyringham.	Clarence E. Michels, Lee.
Medfield, Millis, Norfolk, Westwood.	A. S. Ames, Medfield.
Merrimac, Newbury, Salisbury, West Newbury.	Leon E. Davis, West Newbury.
Millbury, Oxford.....	Chauncey C. Ferguson, Millbury.
Mount Washington, New Marlboro, Sheffield.	Alfred O. Tower, Sheffield.
New Braintree, Sturbridge, West Brookfield.	Frederick E. Bragdon, West Brookfield.
Princeton, Sterling, Westminster.	Harry C. Waldron, Leominster.
Provincetown, Truro, Wellfleet.	C. M. Pennell, Provincetown.
Somerset, Swansea.....	F. C. Tenney, Pottersville.
Wilmington, Boxford, Middleton.	Roscoe G. Frame, Wilmington.

County.	County commissioner.
MICHIGAN.	
Alcona.....	Thomas B. Cook, Harrisville.
Alger.....	Earle H. Sortore, Munising.
Allegan.....	C. L. Goodrich, Allegan.
Alpena.....	E. L. Little, Alpena.
Antrim.....	Archie C. Belding, Bellaire.
Arenac.....	G. H. Glasure, Standish.
Baraga.....	S. O. Clinton, Baraga.
Barry.....	E. J. Edger, Hastings.
Bay.....	J. B. Laing, Bay City.
Benzie.....	A. H. Upton, Frankfort.
Berrien.....	Mrs. E. H. Cole, St. Joseph.
Branch.....	L. L. Livermore, Coldwater.
Calhoun.....	D. A. Davis, Marshall.
Cass.....	Ruth H. Mosier, Dowagiac.
Charlevoix.....	May L. Stewart, East Jordan.
Cheboygan.....	Arthur L. Martin, Cheboygan.
Chippewa.....	T. B. Aldrich, Brimley.
Clare.....	A. H. Aldrich, Harrison.
Clinton.....	T. H. Townsend, St. Johns.
Crawford.....	James A. Kalahar, Frederic.
Delta.....	C. U. Woolpert, Escanaba.
Dickinson.....	D. O'Hara, Iron Mountain.
Eaton.....	Cynthia A. Green, Charlotte.
Emmet.....	H. S. Babcock, Harbor Springs.
Genessee.....	John L. Riegle, Flint.
Gladwin.....	C. J. Barnum, Gladwin.
Gogebic.....	Laura Bowden, Ironwood.
Grand Traverse....	Lee Hornsby, Traverse City.
Gratiot.....	H. A. Potter, Ithaca.
Hillsdale.....	Harry McClave, Hillsdale.
Houghton.....	Wilham Bath, Houghton.
Huron.....	W. H. Sparling, Bad Axe.
Ingham.....	F. E. Searl, Mason.
Ionia.....	Harvey H. Lowrey, Ionia.
Iosco.....	J. A. Campbell, Tawas City.
Iron.....	John F. Mason, Crystal Falls.
Isabella.....	Frank E. Morrison, Mount Pleasant.
Jackson.....	W. W. McLain, Jackson.
Kalamazoo.....	Sheridan Mapes, Kalamazoo.
Kalkaska.....	Irene Louise Getty, Kalkaska.
Kent.....	A. M. Freeland, Grand Rapids.
Keweenaw.....	H. S. Winter, Mohawk.
Lake.....	Edwin G. Johnson, Luther.
Lapeer.....	C. H. Naylor, Lapeer.
Leelanau.....	H. R. Dumbrille, Glen Arbor.
Lenawee.....	G. J. Tripp, Adrian.
Livingston.....	H. G. Aldrich, Fowlerville.
Luce.....	Ann I. Auten, Newberry.
Mackinac.....	E. J. Lachance, St. Ignace.
Macomb.....	Will L. Lee, Mount Clemens.
Manistee.....	Elbert Gerred, Manistee.
Marquette.....	S. R. Anderson, Marquette.
Mason.....	C. A. Rinehart, Scottville.
Mecosta.....	C. G. Card, Big Rapids.
Menominee.....	Jesse Hubbard, Menominee.
Midland.....	B. G. Scollay, Midland.
Missaukee.....	J. Q. Zuck. Lake City.
Monroe.....	John G. Schafer, Monroe.
Montcalm.....	E. Straight, Stanton.
Montmoreney.....	David W. Farrier, Atlanta.
Muskegon.....	Nellie B. Chisholm, Montague.
Newaygo.....	Carrie L. Carter, Fremont.
Oakland.....	A. L. Craft, Pontiac.
Oceana.....	Emma R. Hutchins, Hart.
Ogemaw.....	Josephine Woods, West Branch.
Ontonagon.....	A. C. Adair, Rockland.
Osceola.....	Geo. F. Roxburgh, Reed City.
Oscoda.....	John H. Speck, Fairview.
Otsego.....	R. F. Jennings, Vanderbilt.
Ottawa.....	N. R. Stanton, Holland.
Presque Isle.....	Martha A. Caldwell, Onaway.
Roscommon.....	W. M. Coon, Roscommon.
Saginaw.....	B. S. Tefft, Saginaw, W. S.
St. Clair.....	E. T. Blackney, Port Huron.
St. Joseph.....	Lewis Miller, Centerville.
Sanilac.....	W. J. Musselman, Sandusky.
Schoolcraft.....	W. T. S. Cornell, Manistique.
Shiawassee.....	H. E. Slocum, Corunna.
Tuscola.....	B. H. McComb, Caro.
Van Buren.....	E. V. Root, Paw Paw.
Washtenaw.....	Evan Essery, Ann Arbor.
Wayne.....	E. W. Yost, Detroit.
Wexford.....	Roy Noteware, Cadillac.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
MINNESOTA.	
Aitkin	Mrs. C. S. Young, Aitkin.
Anoka	Geo. D. Goodrich, Anoka.
Becker	Anna G. Rogstad, Detroit.
Beltrami	W. B. Stewart, Bemidji.
Benton	Agnes K. Burns, Sauk Rapids.
Bigstone	Anna Swenson, Ortonville.
Blue Earth	W. H. Detamore, Mankato.
Brown	Robt. B. Kennedy, New Ulm.
Carlton	Nora A. Nilson, Moose Lake.
Carver	F. L. Williams, Watertown.
Cass	R. F. Ross, Walker.
Chippewa	Petra Storaker, Montevideo.
Chisago	E. J. Cederholm, Lindstrom.
Clay	S. O. Tang, Moorhead.
Clearwater	John H. Sommervold, Bagley.
Cook	Wm. J. Clinch, Grand Marais.
Cottonwood	Alfred R. Iverson, Windom.
Crow Wing	Irma C. Hartley, Brainerd.
Dakota	Josephine Raetz, Hastings.
Dodge	Zena Cooper, Mantorville.
Douglas	Geo. Susens, Alexandria.
Fairbault	Margaret E. Bieri, Blue Earth.
Fillmore	Oscar Carlson, Preston
Freeborn	Harold Dahlen, Albert Lea.
Goodhue	E. B. Bergquist, Red Wing.
Grant	Blanch L. Brennin, Elbow Lake.
Hennepin	H. I. Harter, Minneapolis, Courthouse.
Houston	Marie Otterness, Caledonia.
Hubbard	D. R. Bradford, Park Rapids.
Isanti	Mrs. M. B. Hixson, Cambridge.
Itasca	Mrs. Estelle Whipple, Grand Rapids.
Jackson	J. B. Arp, Jackson.
Kanabec	Willis Fairbanks, Mora.
Kandiyohi	W. D. Frederickson, Willmar.
Kittson	Hans Hanson, Hallock.
Koochiching	D. B. Jewell, International Falls.
Lac qui Parle	A. J. Kittleson, Madison.
Lake	Mrs. Alice W. Lawrence, Two Harbors.
Lesueur	J. A. Meagher, Lesueur Center.
Lincoln	J. T. Clawson, Ivanhoe.
Lyon	H. R. Painter, Marshall.
McLeod	Geo. F. Munier, Hutchinson.
Mahnomen	James Sweeney, Mahnomen.
Marshall	David Johnson, Warren.
Martin	C. J. Timms, Fairmont.
Meeker	Anna Onsdorff, Litchfield.
Millelacs	Olaf Wasenius, Princeton.
Morrison	M. E. Barnes, Little Falls.
Mower	Mrs. Eunice L. Rice, Austin.
Murray	Jennie Holm, Slayton.
Nicollet	Albert J. Holmstead, St. Peter.
Nobles	E. K. Sampson, Worthington.
Norman	Ida Rud Falconer, Ada.
Olmsted	Wm. L. Mercer, Rochester.
Otter tail	L. R. Adley, Fergus Falls.
Pennington	E. A. Mostue, Thief River Falls.
Pine	R. H. Blankenship, Pine City.
Pipestone	J. R. Campbell, Pipestone.
Polk	N. A. Thorson, Crookston.
Pope	Lena Otteson, Glenwood.
Ramsey	Geo. H. Reif, St. Paul, Courthouse.
Red Lake	Lou F. Green, Red Lake Falls.
Redwood	Mrs. Adella G. Pratt, Redwood Falls.
Renville	Amalia M. Bengtson, Olivia.
Rice	J. H. Lewis, Faribault.
Rock	Edia A. Headley, Luverne.
Roseau	Mrs. Bergit Billberg, Roseau.
St. Louis	N. A. Young, Duluth.
Scott	T. J. Nickolay, Shakopee.
Sherburne	Ada P. Conger, Becker.
Sibley	W. M. Carver, Gaylord.
Stearns	W. A. Boerger, St. Cloud.
Steele	James A. Mork, Owatonna.
Stevens	Ray S. Roberts, Morris.
Swift	Tille S. Thomason, Benson.
Todd	E. A. Williams, Long Prairie.
Traverse	Bessie Caswell, Wheaton.
Wabasha	Harry V. Fick, Lake City.
Wadena	Maude R. Kennedy, Wadena.
Waseca	H. C. Van Loh, Waseca.
Washington	E. N. Swanson, Stillwater.
Watonwan	Mabel Madson, St. James.
Wilkin	A. S. Gredvig, Breckenridge.
Winona	A. C. Loomis, Winona.
Wright	A. A. Zech, Annandale.
Yellow Medicine	Lue A. Olds, Granite Falls.
MISSISSIPPI.	
Adams	M. C. Montgomery, Natchez.
Alcorn	W. A. McCord, Corinth.
Amite	J. N. Steele, Liberty.
Attala	W. A. Hull, Kosciusko.
Benton	W. T. Renick, Ashland.
Bolivar	G. H. Armstrong, Cleveland.
Calhoun	J. O. Rich, Pittsboro.
Carroll	D. D. Fullilove, Vaiden.
Chickasaw	Geo. D. Riley, Houston.
Choctaw	J. F. Bridges, Chester.
Claiborne	S. J. Russell, Port Gibson.
Clarke	G. B. Parker, Quitman.
Clay	E. H. Walker, West Point.
Coahoma	J. M. Brooks, Clarksdale.
Copiah	A. A. McAlpin, Hazlehurst.
Covington	Alex. Newton, Collins.
De Soto	R. E. L. Morgan, Hernando
Forrest	E. J. Currie, Hattiesburg.
Franklin	W. L. Foreman, Meadville.
George	W. A. Avera, Lucedale.
Greene	Newton James, Leakesville.
Grenada	M. McKibben, Grenada.
Hancock	John Craft, Bay St. Louis.
Harrison	W. H. Wood, Gulfport.
Hinds	F. M. Coleman, Raymond.
Holmes	J. M. Kimbrough, Lexington.
Humphreys	T. D. Rice, Belzoni.
Issaguena	Geo. Robinson, Mayersville.
Itawamba	J. A. Senter, Fulton.
Jackson	A. Flurry, Pascagoula.
Jasper	C. E. Watkins, Bay Springs.
Jefferson	L. L. Posey, Fayette.
Jefferson Davis	W. W. Lee, Prentiss.
Jones	C. W. Jenkins, Laurel.
Kemper	D. W. Jackson, Dekalb.
Lafayette	C. A. McLarty, Oxford.
Lamar	A. Q. Broadus, Purvis.
Lauderdale	T. C. Lockard, Meridian.
Lawrence	W. L. McGahey, Monticello
Leake	C. M. Langford, Carthage.
Lee	T. M. Milam, Tupelo.
Leflore	J. R. Hughes, Greenwood.
Lincoln	Barney Grice, Brookhaven.
Lowndes	E. A. Stanley, Columbus.
Madison	G. R. Bennett, Canton.
Marion	E. I. Watts, Columbia.
Marshall	John P. Horton, Holly Spring.
Monroe	W. A. Addington, Aberdeen.
Montgomery	Guy C. Burton, Winona.
Neshoba	Ivy E. Peebles, Philadelphia.
Newton	M. G. Scarborough, Decatur.
Noxubee	J. G. Chandler, Macon.
Oktibbeha	C. E. Scroggins, Starkville.
Panola	C. B. Young, Sardis.
Pearl River	Leopold Locke, Poplarville.
Perry	W. F. Backstrom, New Augusta.
Pike	H. W. Kenna, Magnolia.
Pontotoc	I. R. Spencer, Pontotoc.
Prentiss	G. D. Chambers, Booneville R. No. 3.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
MISSISSIPPI—con.	
Quitman	F. M. Bizzell, Marks.
Rankin	H. H. Bullock, Brandon.
Scott	O. D. Loper, Forest.
Sharkey	J. N. Hall, Rolling Fork.
Simpson	J. R. Williamson, Mendenhall.
Smith	Allen Caughman, Raleigh.
Tate	C. H. Bass, Wiggins.
Tunica	W. P. Sanders, Indianola.
Union	R. H. Harrison, Charleston.
Walthall	J. T. Cathey, Senatobia.
Warren	J. E. Pearce, Ripley.
Washington	N. L. Phillips, Iuka.
Wayne	L. C. Cannon, Tunica.
Webster	T. O. Randall, New Albany.
Wilkinson	C. I. Brumfield, Tylertown.
Winston	J. H. Culkin, Vicksburg.
Yalobusha	B. L. Hatch, Greenville.
Yazoo	J. M. Wilkins, Waynesboro.
	A. C. Webb, Walthall.
	John C. Day, Woodville.
	Neal Prisock, Louisville.
	J. R. Hodnett, Water Valley.
	Hugh Bull, Yazoo City.
MISSOURI.	
Adair	P. J. Fowler, Kirksville.
Andrew	Leslie M. Dobbs, Savannah.
Atchison	Gertrude Thompson, Rock Port.
Audrain	W. C. Johnson, Mexico.
Barry	W. E. Hankins, Cassville.
Barton	L. E. Brous, Lamar.
Bates	A. C. Moreland, Butler.
Benton	Chas. G. Harvey, Warsaw.
Bollinger	W. M. Welker, Marble Hill.
Boone	Geo. T. Porfer, Columbia.
Buchanan	Geo. K. Gilpin, St. Joseph.
Butler	H. O. Harrawood, Poplar Bluff.
Caldwell	D. N. McClintock, Kingston.
Callaway	R. G. Hale, Fulton.
Camden	M. E. Johnson, Linn Creek.
Cape Girardeau	J. T. McDonald, Cape Girardeau.
Carroll	Mrs. Margaret Squires, Carrollton.
Carter	W. S. Perrin, Ellsinore.
Cass	C. A. Burke, Harrisonville.
Cedar	Ira A. McBride, Stockton.
Chariton	C. C. Carlstead, Keytesville.
Christian	Tom Mapes, Ozark.
Clark	Helen F. McKee, Kahoka.
Clay	E. L. Black, Liberty.
Clinton	Mrs. Anna L. Sims, Plattsburg.
Cole	A. H. Sieve, Jefferson City.
Cooper	S. F. Mauck, Bunceton.
Crawford	Wm. P. Summers, Steelville.
Dade	E. H. Carender, Greenfield.
Dallas	John A. Pitman, Buffalo.
Daviess	Hallie Burton, Gallatin.
Dekalb	W. O. Swails, Clarksdale.
Dent	Jas. W. Millsap, Salem.
Douglas	T. J. Moorhouse, Ava.
Dunklin	E. D. McAnally, Kennett.
Franklin	C. A. Cole, Union.
Gasconade	A. O. Mann, Hermann.
Gentry	Gretchen Jennings, Albany.
Greene	C. W. McCroskey, Springfield.
Grundy	Elizabeth Brainerd, Trenton.
Harrison	Nellie K. Sutton, Bethany.
Henry	Kathryn Spangler, Clinton.
Hickory	Oliver J. Watkins, Hermitage.
Holt	Mrs. Alberta G. Murphy, Oregon.
Howard	Luman L. Spry, Fayette.
Howell	W. C. McMillin, West Plains.
Iron	G. W. Hanson, Ironton.
Jackson	L. F. Blackburn, Independence.
Jasper	L. W. Kost, Carthage.
Jefferson	R. B. Wilson, Hillsboro.
Johnson	R. H. Boston, Warrensburg.
Knox	W. E. Cottey, Edina.
Laclede	G. C. Jones, Lebanon.
Lafayette	H. T. Phillips, Lexington.
Lawrence	Harry Moore, Mount Vernon.
Lewis	Lloyd H. Hicks, Monticello.
Lincoln	Sallie Brown, Troy.
Linn	E. L. Joyce, Brookfield.
Livingston	J. M. Gallatin, Chillicothe.
McDonald	P. M. Collings, Pineville.
Macon	O. L. Cross, Macon.
Madison	W. S. Cooper, Fredericktown.
Maries	C. D. Snodgrass, Vienna.
Marion	Frankie Connell, Hannibal.
Mercer	W. B. Kesterson, Princeton.
Miller	H. M. Atwell, Tuscumbia.
Mississippi	Mrs. Clara E. Graham, Charleston.
Moniteau	Edgar Strother, California.
Monroe	L. D. Ash, Paris.
Montgomery	W. F. Hupe, Montgomery City.
Morgan	M. Wray Witten, Versailles.
New Madrid	L. O. Swan, New Madrid.
Newton	W. E. Veerkamp, Neosho.
Nodaway	A. H. Cooper, Maryville.
Oregon	C. O. Custer, Alton.
Osage	R. H. Bryan, Linn.
Ozark	A. J. Kimball, Romance.
Pemiscot	Chas. G. Ross, Caruthersville.
Perry	Thomas Caruthers, Perryville.
Pettis	T. R. Luckett, Sedalia.
Phelps	A. Z. Black, Rolla.
Pike	O. A. Wilson, Bowling Green.
Platte	J. F. Sexton, Platte City.
Polk	Daisy Johnson, Bolivar.
Pulaski	L. J. Gladden, Laquey.
Putnam	H. U. G. Turnmire, Unionville.
Ralls	L. C. Northcutt, New London.
Randolph	S. B. McCully, Moberly.
Ray	W. T. McGaugh, Richmond.
Reynolds	J. G. Hartman, Centerville.
Ripley	C. N. Pennington, Doniphan.
St. Charles	Benj. H. Jolly, St. Charles.
St. Clair	C. E. Higgins, Osceola.
St. Francois	J. Clyde Akers, Farmington.
Ste. Genevieve	Vivan Gaty, Ste. Genevieve.
St. Louis	R. G. Russell, Clayton.
Saline	Jas. L. Lynch, Marshall.
Schuyler	J. F. Botts, Lancaster.
Scotland	Mrs. Arla Williams, Memphis.
Scott	M. E. Montgomery, Benton.
Shannon	Walter Webb, Eminence.
Shelby	Mrs. Myrtle Threlkeld, Shelbyville.
Stoddard	Mrs. C. E. Smith, Bloomfield.
Stone	L. V. Threlfall, Galena.
Sullivan	Roxana Jones, Milan.
Taney	J. W. Bennett, Forsyth.
Texas	James K. Connolly, Houston.
Vernon	Lizzie L. White, Nevada.
Warren	F. K. Kehr, Marthaville.
Washington	Burwell Fox, Potosi.
Wayne	C. E. Burton, Piedmont.
Webster	Sam A. Miller, Marshfield.
Worth	Mrs. Cora Early, Grant City.
Wright	John M. Carter, Hartville.
MONTANA.	
Beaverhead	L. Elizabeth Sutherland, Dillon.
Big Horn	Lucy Batty, Hardin.
Blaine	Margaret Vanden Sias, Chinook.
Broadwater	Opal Cronk, Townsend.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
MONTANA—contd.	
Carbon	Asgerd Haaland, Red Lodge.
Cascade	Jane Keeney, Great Falls.
Chouteau	Elizabeth D. Milliken, Fort Benton.
Custer	Olive H. Lovett, Miles City.
Dawson	Camilla Osborne, Glendive.
Deer Lodge	May Russell, Anaconda.
Fallon	Mildred Lamb, Baker.
Fergus	Nellie Fahey, Lewistown.
Flathead	Mary Eckstein, Kalispell.
Gallatin	Ida W. Davis, Bozeman.
Granite	Mrs. Lottie T. Irvine, Philipsburg.
Hill	Laura G. Lovett, Havre.
Jefferson	Jennie Carlson, Boulder.
Lewis and Clark	May J. Crichton, Helena.
Lincoln	Carrie M. Spence, Libby.
Madison	Mary Bull, Virginia City.
Meagher	Mary J. Davies, White Sulphur Springs.
Mineral	Mrs. M. Leota Wright, Superior.
Missoula	Mabel Lindstadt, Missoula.
Musselshell	Minnie F. Ferguson, Roundup.
Park	Elsie Mercier, Livingston.
Phillips	Flora Sims, Malta.
Powell	Irene Coughlin, Deer Lodge.
Prairie	Annie E. Lowall, Terry.
Ravalli	Katherine Drayton Hamilton.
Richland	Emogene Lestra, Sidney.
Rosebud	Mrs. C. P. Adams, Forsyth.
Sanders	Ethel Toulmin, Thompson Falls.
Sheridan	Irene Murphy, Plentywood.
Silver Bow	Julia Shea, Butte.
Stillwater	Gertrude Sylvester, Columbus.
Sweet Grass	Inga Solberg, Big Timber.
Teton	Grace M. Thompson, Chouteau.
Toole	Mrs. Bertha Blacker, Shelby.
Valley	Nellie Johonnott, Glasgow.
Wilbaux	Mrs. Maude Banker-Wills, Wilbaux.
Yellowstone	Frances Miller, Billings.
NEBRASKA.	
Adams	Mary Dungan, Hastings.
Antelope	C. A. Mohrman, Neligh.
Arthur	Charles Harding, Arthur.
Banner	Minnie Larson, Harrisburg.
Blaine	A. L. Shamblin, Brewster.
Boone	Hannah C. Johnson, Albion.
Box Butte	Opal Russell, Alliance.
Boyd	Zazel Sloniger, Butte.
Brown	Mrs. Lena Morris, Ainsworth.
Buffalo	Kathryn Laugslin, Kearney.
Burt	W. T. Poucher, Tekamah.
Butler	Oma L. Cady, David City.
Cass	Alpha Peterson, Plattsmouth.
Cedar	Emma Schwerin, Hartington.
Chase	Addie P. Spangler, Imperial.
Cherry	Edith Adamson, Valentine.
Cheyenne	Anna McFadden, Sidney.
Clay	L. J. Gilkeson, Clay Center.
Colfax	F. J. Vogltance, Schuyler.
Cuming	Emma R. Miller, West Point.
Custer	T. C. Grimes, Broken Bow.
Dakota	Wilfred E. Voss, Dakota
Dawes	Edna Rincker, Chadron.
Dawson	W. C. Bloom, Lexington.
Deuel	Mrs. Retta F. Brown, Chappell.

County.	County superintendent.
NEBRASKA—con.	
Dixon	W. F. Richardson, Ponca.
Dodge	J. M. Matzen, Fremont.
Douglas	Thomas J. Keenan, Omaha.
Dundy	Una Richards, Benkelman.
Fillmore	Lillian D. Green, Geneva.
Franklin	Pearl O'Neal, Bloomington.
Frontier	Mable Keith, Stockville.
Furnas	G. W. Fletcher, Beaver City.
Gage	Thomas J. Trauernicht, Beatrice.
Garden	Esther Johnson, Oshkosh.
Garfield	Florence Alderman, Burwell.
Gosper	F. W. Montgomery, Elwood.
Grant	Theo. A. Frye, Hyannis.
Greeley	Margaret L. Tracy. Greeley.
Hall	Elizabeth Cunningham, Grand Island.
Hamilton	Arthur S. Nelson, Aurora.
Harlan	Frances E. White, Alma.
Hayes	H. O. Bixler, Hayes Center.
Hitchcock	Vida B. Day Martin, Trenton.
Holt	Minnie B. Miller, O'Neill.
Hooker	J. H. Garrett, Mullen.
Howard	W. G. Baker, St. Paul.
Jefferson	Henry Abrams, Fairbury.
Johnson	L. C. Custer, Tecumseh.
Kearney	Oscar Warp, Minden.
Keith	Katherine Feather, Ogalalla.
Keya Paha	Abbie F. Pelletier, Springview.
Kimball	Rachel McElroy, Kimball.
Knox	A. S. Stinson, Center.
Lancaster	Mrs. Minnie P. Knott, Lincoln.
Lincoln	Aileen Gantt, North Platte.
Logan	Alice Coleman Hill, Gandy.
Loup	Edith Wirsig, Taylor.
McPherson	O. A. Johnson, Tryon.
Madison	N. A. Housel, Madison.
Merrick	Margaret McCutchen, Central City.
Morrill	E. F. Kelley, Bridgeport.
Nance	Chloe Baldridge, Fullerton.
Nemaha	Bess E. Anderson, Auburn.
Nuckolls	Clyde W. Lehman, Nelson.
Otoe	Chas. Speedie, Nebraska City.
Pawnee	Elsie A. Hammond, Pawnee City.
Perkins	Belle Holaway, Grant.
Phelps	Alice A. Swanson, Holdrege.
Pierce	Lettie Scott, Pierce.
Platte	Fred S. Lecron, Columbus.
Polk	Amelia Rasmussen, Osceola.
Red Willow	Julia C. Barnes, McCook.
Richardson	D. H. Weber, Falls City.
Rock	Chas. G. Ammon, Bassett.
Saline	L. J. Bouchal, Wilber.
Sarpy	Cordelia Gramlich, Papillion.
Saunders	F. E. Alder, Wahoo.
Scotts Bluff	Ada Haldeman, Gering.
Seward	J. C. Greenwood, Seward.
Sheridan	Pearle E. Summers, Rushville.
Sherman	L. H. Currier, Loup City.
Sioux	Vinnie Newell, Harrison.
Stanton	Ilah B. Ohlson, Stanton.
Thayer	A. T. Holtzen, Hebron.
Thomas	Inez L. Oakes, Tredford.
Thurston	Carrie J. Kellner, Pender.
Valley	E. D. Clason, Ord.
Washington	N. T. Lund, Blair.
Wayne	Pearl Sewell, Wayne.
Webster	Gertrude L. Coon, Red Cloud.
Wheeler	Edith Bowler, Bartlett.
York	T. C. Lord, York.

XII.—County and Other Local Superintendents of Schools—Continued.

Towns in union.	Union superintendent.
NEW HAMPSHIRE.[1]	
Ashland, Rumney, Wentworth.	Clarence M. Harris, Ashland.
Claremont, Charlestown.	Alonzo J. Knowlton, Claremont.
Colebrook, Errol, Wentworth's Location.	Chas. O. Dalrymple, Colebrook.
Conway, Madison, Bartlett, Jackson Special.	Llewellyn M. Felch, North Conway.
Derry, Londonderry.	Charles W. Cutts, Derry.
Exeter, Newfields, Kensington, Hampton Falls, Hampton.	Maro S. Brooks, Exeter.
Franklin, Hill	George A. Keith, Franklin.
Goffstown, Bedford, New Boston.	Howard L. Winslow, Goffstown.
Gorham, Randolph, Shelburne.	Almon W. Bushnell, Gorham.
Greenland, Newington, Durham, Rye, North Hampton.	C. H. Walker.
Hampstead, Raymond, Epping.	Albert T. Lane.
Hanover, Plainfield.	Catherine L. Dole, Lebanon.
Hillsboro, Antrim, Peterboro.	Leon E. Prior, Hillsboro.
Hinsdale, Chesterfield, Francestown.	George O. Smith, Hinsdale.
Hopkinton, Weare, Dunbarton, Henniker.	Fred S. Libbey, Contoocook.
Lebanon, Enfield	H. Leslie Sawyer, Lebanon.
Lisbon, Landaff, Franconia, Lyman.	Leonard S. Morrison, Lisbon.
Littleton, Bethlehem Town.	Guy E. Speare, Littleton.
NEW HAMPSHIRE—con.	
Meredith, Woodstock, Gilford, New Hampton.	William H. Buker, Meredith.
Milford, Amherst, Hollis, Mont Vernon.	Alfred W. Smith, Milford.
Newport, New London, Sunapee.	W. H. S. Ellingwood, Newport.
Northwood, Deerfield, Lee, Nottingham.	Walton S. Adams, Northwood Center.
Pembroke, Allenstown, Merrimack.	Henry S. Roberts, Suncook.
Penacook, Hookset, Boscawen.	George W. Sumner, Penacook.
Pittsfield, Chichester, Loudon, Barnstead,	Frederick T. Johnson, Pittsfield.
Rochester, Rollinsford.	Charles A. Breck, Rochester.
Salem, Atkinson, Hudson.	James A. MacDougall, Salem.
Somersworth, New Market.	Edward H. Leonard, Somersworth.
Stratford, Northumberland, Columbia.	Orin M. Holman, North Stratford.
Swanzey, Dublin, Winchester, Harrisville.	Andrew P. Averill, Keene, R. F. D. 1.
Tilton, Belmont, Gilmanton.	Channing T. Sanborn, Tilton.
Troy, Fitzwilliam, Rindge, Jaffrey,	Lewis S. Record, East Jaffrey.
Walpole, Westmoreland, Langdon, Marlboro, Alstead.	Everett J. Best, Walpole.
Whitefield, Jefferson, Bethlehem Special.	Frank W. Jackson, Whitefield.
Wilton, Hancock, Temple, New Ipswich, Greenville.	Louis De Witt Record, Wilton.
Wolfeboro, Alton, Farmington, Tuftonboro, New Durham.	F. U. Landman, Wolfeboro.
Woodsville, Haverhill, Bath, Piermont.	Norman J. Page, Woodsville.

County.	County superintendent.
NEW JERSEY.	
Atlantic	H. M. Cressman, Egg Harbor City.
Bergen	B. C. Wooster, Hackensack.
Burlington	L. J. Kayser, Mount Holly.
Camden	C. S. Albertson, Camden.
Cape May	Aaron W. Hand, Cape May Court House.
Cumberland	J. J. Unger, Bridgeton.
Essex	Oliver J. Morelock, Newark.
Gloucester	D. T. Steelman, Woodbury.
Hudson	A. H. Updyke, Jersey City.
Hunterdon	J. S. Hoffman, Flemington.
Mercer	J. M. Arnold, Trenton.
Middlesex	H. B. Willis, New Brunswick.
Monmouth	C. J. Strahan, Freehold.
Morris	J. H. Hulsart, Morristown.
Ocean	C. A. Morris, Toms River.
Passaic	E. W. Garrison, Paterson.
Salem	H. C. Dixon, Salem.
Somerset	Henry C. Krebs, Somerville.
Sussex	Ralph Decker, Newton.
Union	A. L. Johnson, Elizabeth.
Warren	Howard E. Shimer, Belvidere
NEW MEXICO.	
Bernalillo	Atanasio Montoya, Albuquerque.
NEW MEXICO—con.	
Chaves	Mrs. T. W. Hayes, Roswell.
Colfax	Jay T. Conway, Raton.
Curry	J. M. Bickley, Clovis.
De Baca	Rachel V. Smith, Fort Sumner.
Dona Ana	R. E. McBride, Las Cruces.
Eddy	W. A. Poore, Carlsbad.
Grant	Miss I. L. Eckles, Silver City.
Gaudalupe	Bonifacio Lucero, Santa Rosa.
Lea	Sarah K. Ellis, Lovington.
Lincoln	J. E. Koonce, Carrizozo.
Luna	Mrs. Alice Smith, Deming.
McKinley	Palmer Ketner, Gallup.
Mora	Milnor Rudolph, Mora.
Otero	Lacy Simms, Alamogordo.
Quay	J. A. Atkins, Tucumcari.
Rio Arriba	Jose O. Garcia, Velarde.
Roosevelt	Sam J. Stinnett, Portales.
Sandoval	J. Felipe Castillo, Bernalillo.
San Juan	Earl Douglas, Aztec.
San Miguel	Benito F. Baca, Las Vegas.
Santa Fe	Nina Otero Warren, Santa Fe.
Sierra	Mrs. J. A. Dye, Hillsboro.
Socorro	Martin Lopez, Socorro.
Taos	Pablo Quintana, Taos.
Torrance	Charles L. Burt, Mountainair.
Union	H. H. Errett, Clayton.
Valencia	Saturnino Baca, Belen.

[1] Practically all city superintendents have rural schools under their supervision. See list, p. 82.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	District superintendent.
NEW YORK.[1]	
Albany	E. E. Richmond, Ravenna.
	W. J. Haverly, West Berne.
	Warren Ratcliffe, Cohoes.
Allegany	Frank L. Tuthill, Fillmore.
	John D. Jones, Cuba.
	O. M. Burdick, Little Genesee.
	W. H. Garwood, Canaseraga.
	Willet L. Ward, Wellsville.
Broome	Harvey B. Heath, Ouaquaga.
	J. E. Hurlburt, Windsor.
	K. E. Beilby, Union.
	Erwin B. Whitney, Whitney Point.
Cattaraugus	Joel J. Crandall, Franklinville.
	Gilbert A. Farwell, Hinsdale.
	C. S. Palmer, Salamanca.
	G. E. Waller, Little Valley.
Cayuga	E. A. Stratton, Randolph.
	H. S. R. Murphy, Cato.
	H. T. Morrison, Weedsport.
	Anna M. Kent, Union Springs
	G. B. Springer, Genoa.
Chautauqua	Mabel C. L. Rodger, Moravia.
	J. N. Palmer, Forestville.
	J. M. Barker, Niobe.
	Mrs. D. B. Connelly, Stowe.
	J. G. Pratt, Sherman.
	L. Waldo Swain, Westfield.
	J. S. Wright, Falconer.
Chemung	Walter C. King, Horseheads.
	Harriet Easterbrook, Elmira.
Chenango	Ellen E. Baldwin, Lincklaen.
	Albert C. Bowers, New Berlin.
	J. S. Childs, Oxford.
	Jane I. Schenck, Greene.
	Mary L. Isbell, Norwich.
Clinton	Oliver A. Wolcott, Keeseville.
	Ernest B. Sargeant, Ellenburg.
	Clara E. Soden, Mooers Forks.
Columbia	S. B. Smith, East Chatham.
	W. L. Millias, Valatie.
	M. G. Rickey, Clermont.
Cortland	W. K. Patrick, Cuyler.
	Ada M. Shuler, McGraw.
	C. D. Carter, Marathon, R. 3.
Delaware	C. W. Vandergrift, Sidney.
	Z. Le R. Myers, Downesville.
	E. O. Harkness, Delhi.
	Fayette Whitney, Roxbury.
	M. G. Nelson, Franklin.
	A. T. Hamilton, North Harpersfield.
Dutchess	Frank L. Haight, Fishkill.
	Clayton T. Sherman, Beacon.
	Clara E. Drum, Clinton Corners.
	F. O. Green, Tivoli.
Erie	C. A. Heist, Clarence.
	H. A. Dann, Lancaster.
	W. E. Pierce, East Aurora.
	E. D. Ormsby, North Collins.
	W. E. Bensley, Springville.
Essex	C. J. Mousaw, Schroon Lake.
	Gertrude M. Spear, Westport.
	Mattie J. Prime, Upper Jay.
Franklin	Myrtle E. MacDonald, Chateaugay.
	G. La Graff, Tupper Lake.
	F. H. Wilcox, North Bangor.
	Gertrude E. Hyde, Moira.
Fulton	Fred A. Stryker, Johnstown
	John Paris, Broadalbin.
Genesee	H. W. Dyer, East Pembroke.
Greene	J. L. M. Uphill, Batavia.
	Thos. C. Perry, Catskill.
	R. M. MacNaught, Windham.
	Walter J. Decker, Hunter.
Hamilton	C. B. Hanley, Wells.
Herkimer	A. J. Rose, West Winfield.
	Silas C. Kimm, Herkimer.
	C. B. Keller, Little Falls.
	B. M. Robinson, Poland.
Jefferson	C. M. Pierce, Adams.
	W. J. Linnell, Brownville.
	T. B. Stoel, Clayton.
	R. W. Bowman, Sacketts Harbor.
	D. D. T. Marshall, Redwood.
	J. C. Knapp, Philadelphia.
Lewis	Glenn G. Steele, Croghan.
	Orson C. Babbitt, Copenhagen.
	Ruth M. Johnston, Port Leyden.
	A. W. Trainor, West Leyden.
Livingston	John P. Magee, Geneseo.
	G. C. McNinch, Conesus.
	R. G. Conklin, Tuscarora.
Madison	Irving S. Sears, Hamilton.
	Clayton J. Wratten, DeRuyter.
	E. A. Fuller, Morrisville.
	John B. Harris, Canastota.
Monroe	W. W. Rayfield, Webster.
	M. B. Furman, East Rochester.
	Fred W. Hill, Spencerport.
	John C. Malloch, Churchville.
Montgomery	N. Berton Alter, Fort Plain.
	Walter Elwood, Amsterdam.
Nassau	James S. Cooley, Mineola.
	W. C. Mepham, Merrick.
Niagara	W. D. Wisner, Ransomville.
	Orrin A. Kolb, Lockport, R. F. D. 5.
	M. Gazeller Hoffman, Lewiston.
Oneida	Ray P. Snyder, New York Mills.
	Harry C. Buck, Clayville.
	W. J. Lewis, Clinton.
	F. E. Mathewson, Verona.
	Stanton D. Austin, Barneveld.
	Pauline L. Scott, Blossvale.
	Daniel M. Blue, Boonville.
Onondaga	M. E. Hinman, Tully.
	G. T. Fuggle, Jamesville.
	E. E. McDowell, Memphis.
	Manford D. Green, Liverpool.
	Jennie A. Cowles, Skaneateles.
Ontario	Leon J. Cook, East Bloomfield.
	H. S. G. Loveless, Phelps.
	E. G. Soper, Seneca Castle.
	G. A. Bolles, Naples.
Orange	Theron L. McKnight, Central Valley.
	O. Eichenberg, Monroe.
	S. A. Cortright, Middletown.
Orleans	Mary J. Franklin, Medina.
	Cora V. Luttenton, Albion.
	Charles W. Smith, Holley.
Oswego	Mildred G. Pratt, Lacona.
	J. M. Bonner, Richland.
	Aura A. Cole, Constantia.
	Charles I. Kingsbury, Mexico.
	W. S. Gardner, Fulton.
Otsego	J. B. McManus, Cooperstown.
	Menzo Burlingame, Worcester.
	Grace A. Louden, Cooperstown.
	John E. Frederick, Oneonta.
	Harrison Cossaart, Morris.
	Floyd R. Thayer, Edmeston.
Putnam	A. J. Williams, Brewster.
Rensselaer	Mrs. C. B. Clark, Troy.
	Mrs. Adelaide W. Gardner, Stephentown.
	H. G. Grubel, East Greenbush.

[1] Supervisory districts are counties in four cases; elsewhere, parts of counties.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	District superintendent.
NEW YORK—con.	
Rockland	George W. Miller, Nanuet.
St. Lawrence	W. T. Clark, Hailesboro.
	F. H. Wallace, Morristown.
	Carlos S. Blood, Heuvelton.
	V. C. Warriner, Lisbon.
	Rose M. Libby, Colton.
	Mrs. E. D. Grubb, Norwood.
	E. F. McDonald, Massena.
Saratoga	A. J. Fields, Winthrop.
	A. A. Lavery, Round Lake.
	Lou Messinger, Ballston Spa.
	E. E. Hinman, Schuylerville.
	A. M. Hollister, Corinth.
Schenectady	Frank W. Palmer, Schenectady.
Schoharie	Leslie A. Tompkins, Jefferson.
	Silas Sprinstead, Cobleskill.
	R. W. Eldredge, Sharon Springs.
Schuyler	Alberta Spaulding, Burdett.
	Jennie M. Ellison, Reading Center.
Seneca	W. S. Wilson, Ovid.
Steuben	Charles B. Earl, Waterloo.
	Frank H. Smith, Addison.
	Winfred Morrow, Bath.
	Howard Harrison, Addison.
	F. C. Wilcox, Greenwood.
	H. M. Brush, Arkport.
	Guyon J. Carter, Avoca.
Suffolk	J. G. McConnell, Prattsburg.
	P. B. Matthews, Bridgehampton.
	J. Henry Young, Central Islip.
Sullivan	Leonard J. Smith, Northport.
	F. J. Lewis, Barryville.
	Charles S. Hick, Jeffersonville.
	Mrs. Emma C. Chase, Monticello.

County.	District superintendent.
NEW YORK—con.	
Tioga	A. E. Belden, Newark Valley.
	M. D. Goodrich, Tioga Center.
Tompkins	H. T. Whittemore, Nichols.
	Fred A. Beardsley, Trumansburg.
	Hattie K. Buck, North Lansing.
Ulster	John D. Bigelow, Ithaca.
	Emily S. Burnett, Kingston, Station R.
	J. U. Gillette, Port Ewen.
	J. M. Schoonmaker, Accord.
Warren	W. J. Andrews, Oliverea.
	F. F. Gunn, Glens Falls.
	J. R. Stickney, Bolton Landing.
	Mrs. Rose Minnick, Glens Falls.
Washington	Amelia Blasdell, Fort Ann.
	Mrs. E. M. S. Devine, Hudson Falls.
	Mary A. Potter, Greenwich, R. F. D. 4.
Wayne	F. H. Rich, Salem.
	Mrs. Helen C. Andrews, Lyons.
	Mrs. Ida E. Cosad, Wolcott.
	Albert H. McMurray, Walworth.
Westchester	R. O. Brundige, Ontario.
	S. J. Preston, White Plains.
	C. H. Cheney, White Plains.
	G. H. Covey, Katonah.
	R. D. Knapp, Purdy Station.
Wyoming	J. T. McGurren, Bliss.
	Harriet M. Patch, Cowlesville.
	G. H. Stratton, Castile.
Yates	J. F. Bullock, Penn Yan.
	E. P. Corbit, Rushville.

County.	County superintendent.
NORTH CAROLINA.	
Alamance	J. H. Flemming, Graham.
Alexander	A. F. Sharpe, Stony Point.
Alleghany	J. O. Joines, Stratford.
Anson	W. C. Bivens, Wadesboro.
Ashe	C. M. Dickson, Silas Creek.
Avery	Frank A. Edmonson, Newland.
Beaufort	H. H. McLean, Washington
Bertie	H. W. Early, Windsor.
Bladen	B. J. Cromartie, Garland.
Brunswick	M. C. Guthrie, Southport.
Buncombe	W. H. Hipps, Asheville.
Burke	T. L. Sigmon, Morganton.
Cabarrus	J. B. Robertson, Concord.
Caldwell	R. M. Smith, Lenoir.
Camden	F. M. Eason, Camden.
Carteret	L. B. Emmett, Stella.
Caswell	G. A. Anderson, Yanceyville.
Catawba	George E. Long, Newton.
Chatham	F. M. Williamson, Pittsboro.
Cherokee	A. L. Martin, Murphy.
Chowan	M. L. Wright, Edenton.
Clay	T. C. Scroggs, Hayesville.
Cleveland	J. Y. Irvin, Shelby.
Columbus	F. T. Wooten, Chadbourn.
Craven	S. M. Brinson, New Bern.
Cumberland	B. T. McBryde, Fayetteville.
Currituck	W. D. Cox, Moyock.
Dare	James E. Holmes, Manteo.
Davidson	S. G. Hasty, Lexington.
Davie	F. P. Bradley, Mocksville.
Duplin	M. H. Wooten, Kenansville.
Durham	C. W. Massey, Durham.

County.	County superintendent.
NORTH CAROLINA—continued.	
Edgecombe	R. E. Sentelle, Tarboro.
Forsyth	W. B. Speas, Winston-Salem.
Franklin	E. L. Best, Louisburg.
Gaston	F. P. Hall, Belmont.
Gates	J. H. Lassiter, Gatesville.
Graham	R. P. Jenkins, Stecoah.
Granville	J. F. Webb, Oxford.
Greene	J. E. Debnam, Snow Hill.
Guilford	Thos. R. Foust, Greensboro.
Halifax	A. E. Akers, Roanoke Rapids.
Harnett	B. P. Gentry, Lillington.
Haywood	R. A. Sentell, Waynesville.
Henderson	W. S. Shitle, Hendersonville
Hertford	N. W. Britton, Winton.
Hoke	J. A. McRae, Raeford.
Hyde	G. M. Guthrie, Swan Quarter.
Iredell	James A. Steele, Statesville.
Jackson	J. N. Wilson, Cullowhee.
Johnston	L. T. Royall, Smithfield.
Jones	John R. Barker, Trenton.
Lee	E. M. Judd, Sanford.
Lenoir	Joseph Kinsey, Kinston.
Lincoln	L. B. Beam, Lincolnton.
McDowell	N. F. Steppe, Marion.
Macon	M. D. Billings, Franklin.
Madison	Fred C. Sams, Mars Hill.
Martin	A. J. Manning, Williamston.
Mecklenberg	J. M. Matthews, Charlotte.
Mitchell	D. W. Greene, Wing.
Montgomery	W. A. Cochran, Troy.
Moore	John A. McLeod, Carthage.
Nash	Oscar Creech, Nashville.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
NORTH CAROLINA—continued.	
New Hanover	W. Catlett, Wilmington.
Northampton	P. J. Long, Jackson.
Onslow	W. M. Thompson, Jacksonville.
Orange	F. L. Foust, Hillsboro.
Pamlico	T. B. Attmore, Stonewall.
Pasquotank	W. M. Hinton, Elizabeth City.
Pender	T. T. Murphy, Burgau.
Perquimans	Charles Wheedbee, Hertford.
Person	J. A. Beam, Roxboro.
Pitt	S. B. Underwood, Greenville.
Polk	E. W. S. Cobb, Columbus.
Randolph	T. F. Bulla, Asheboro.
Richmond	L. J. Bell, Rockingham.
Robeson	J. R. Poole, Lumberton.
Rockingham	J. H. Allen, Reidsville.
Rowan	R. G. Kizer, Salisbury.
Rutherford	W. R. Hill, Rutherfordton.
Sampson	L. L. Matthews, Clinton.
Scotland	L. M. Peele, Laurinburg.
Stanly	E. F. Eddins, Palmerville.
Stokes	J. T. Smith, King.
Surry	J. H. Allen, Elkin.
Swain	J. M. Smiley, Bryson City.
Transylvania	A. F. Mitchell, Penrose.
Tyrrell	J. S. Sprulll, Columbia.
Union	R. N. Nisbet, Monroe.
Vance	E. M. Rollins, Henderson.
Wake	Edgar W. Knight, Raleigh.
Warren	H. F. Jones, Warrenton.
Washington	John W. Darden, Plymouth.
Watauga	Smith Hagaman, Vilas.
Wayne	E. T. Atkinson, Goldsboro.
Wilkes	C. C. Wright, Hunting Creek.
Wilson	C. L. Coon, Wilson.
Yadkin	J. T. Reece, Yadkinville.
Yancey	W. O. Griffith, Windom.
NORTH DAKOTA.	
Adams	Rose Wagner, Hettinger.
Barnes	Minnie J. Nielson, Valley City.
Benson	Peter Anderson, Minnewaukan.
Billings	Mable I. Rapp, Medora.
Bottineau	H. E. Layne, Bottineau.
Bowman	H. O. Saxvik, Bowman.
Burke	C. H. Worf, Bowbells.
Burleigh	W. E. Parsons, Bismarck.
Cass	J. W. Riley, Fargo.
Cavalier	Fred J. Reher, Langdon.
Dickey	Mattie Crabtree, Ellendale.
Divide	J. H. Phelps, Crosby.
Dunn	Lois Viall Sanden, Manning.
Eddy	H. H. Maxwell, New Rockford.
Emmons	Lester Briggle, Linton.
Foster	Mary K. Beatty, Carrington.
Golden Valley	Mrs. Jessie L. Kinsey, Beach.
Grand Forks	M. Beatrice Johnstone, Grand Forks.
Grant	Mina Aasved, Carson.
Griggs	Tena P. Ragner, Cooperstown
Hettinger	Shirley Fox, Mott.
Kidder	Adria Williams, Steele.
Lamoure	Cora E. Sabin, Lamoure.
Logan	Sol R. Eilert, Napoleon.
McHenry	A. C. Berg, Towner.
McIntosh	Geo. A. Boeschma, Ashley.
McKenzie	F. J. Steffeck, Schafer.
McLean	M. C. McCurdy, Washburn.
Mercer	E. D. Goodwin, Stanton.
Morton	H. K. Jensen, Mandan.
Mountrail	V. A. Lovell, Stanley.
Nelson	P. J. Iverson, Lakota.
Oliver	F. E. Karges, Center.
Pembina	Charlotte A. Jones, Cavalier.
Pierce	Sara C. Guss, Rugby.
Ramsey	John A. Haig, Devils Lake.
Ransom	C. E. Cavett, Lisbon.
Renville	Ludvig M. Rockne, Mohall.
Richland	Chas. Hanson, Wahpeton.
Rolette	Mrs. Mary K. Packard, Rolla.
Sargent	Henry Ulve, Forman.
Sheridan	E. O. Kleve, McClusky.
Sioux	L. W. Colebank, Swastika.
Slope	Mrs. H. H. Bond, Amidon.
Stark	C. E. Ward, Dickinson.
Steele	Aagot Raaen, Sherbrooke.
Stutsman	Mary E. McGinnis, Jamestown.
Towner	Mamie Sorenson, Cando.
Traill	Guri Wambheim, Hillsboro.
Walsh	W. J. Hoover, Grafton.
Ward	W. D. Wendt, Minot.
Wells	Sennev Nertrost, Fessenden.
Williams	Anna M. Peterson, Williston.
OHIO.	
Adams	W. L. Hostetter, West Union.
Allen	C. A. Arganbright, Lima.
Ashland	J. N. Pinkerman, Ashland.
Ashtabula	H. D. Clarke, Jefferson.
Athens	Alex. Root, Athens.
Auglaize	J. H. Hencke, Wapakoneta.
Belmont	Geo. M. Pogue, St. Clairsville.
Brown	E. V. Stephan, Georgetown.
Butler	John Schwarz, Hamilton.
Carroll	G. E. Bell, Carrollton.
Champaign	J. C. Neer, Urbana.
Clark	J. M. Collins, Springfield.
Clermont	H. C. Aultman, Batavia.
Clinton	H. W. Hodson.
Columbiana	John W. Moore, Lisbon.
Coshocton	L. C. Shaw, Coshocton.
Crawford	F. G. Bittikofer, Bucyrus.
Cuyahoga	A. G. Yawberg, Cleveland.
Darke	C. A. Wilt, Greenville.
Defiance	W. W. Heater, Defiance.
Delaware	Paul M. Lybarger, Delaware.
Erie	I. S. Winner, Sandusky.
Fairfield	C. C. Miller, Lancaster.
Fayette	O. S. Nelson, Washington Court House.
Franklin	Wm. S. Coy, Columbus.
Fulton	C. D. Perry, Wauseon.
Gallia	Wayne Lutz, Gallipolis.
Geauga	Harold Ryder, Chardon.
Greene	F. M. Reynolds, Xenia.
Guernsey	W. G. Wolfe, Cambridge.
Hamilton	Pliny A. Johnston, Cincinnati.
Hancock	A. J. Nowlan, Findlay.
Hardin	F. P. Allyn, Kenton.
Harrison	G. E. Roche, Cadiz.
Henry	W. T. Hatcher, Napoleon.
Highland	W. H. Vance, Hillsboro.
Hocking	W. C. Brashares, Logan.
Holmes	F. H. Close, Millersburg.
Huron	O. C. Minnich, Norwalk.
Jackson	M. A. Henson, Jackson.
Jefferson	W. I. Everson, Steubenville.
Knox	J. C. Marriott, Mount Vernon.
Lake	F. H. Kendall, Painesville.
Lawrence	L. C. Martin, Ironton.
Licking	N. D. O. Wilson, Newark.
Logan	E. A. Bell, Bellefontaine.
Lorain	W. A. Hiscox, Elyria.
Lucas	J. W. Whitmer, Toledo.
Madison	L. C. Dick, London.
Mahoning	Jerome Hull, Youngstown.
Marion	W. R. Heistand, Marion.
Medina	R. W. Pierce, Medina.
Meigs	G. H. Crow, Pomeroy.
Mercer	S. Cotterman, Celina.
Miami	L. J. Bennett, Troy.
Monroe	E. C. Feiock, Woodsfield.
Montgomery	A. A. Maysilles, Dayton.
Morgan	Clarence G. Johnson, McConnellsville.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
OHIO—continued.	
Morrow	C. C. Crawford, Mount Gilead.
Muskingum	John S. McGinnis, Zanesville.
Noble	H. L. Bates, Caldwell.
Ottawa	A. O. Dehn, Port Clinton.
Paulding	John C. Berg, Paulding.
Perry	D. E. Riggle, New Lexington.
Pickaway	M. C. Warren, Circleville.
Pike	J. D. McKinley, Waverly.
Portage	E. O. Pore, Ravenna.
Preble	W. S. Fogarty, Eaton.
Putnam	G. J. Keinath, Ottawa.
Richland	E. W. Bell, Mansfield.
Ross	A. W. Whetstone, Chillicothe.
Sandusky	S. A. Harbourt, Fremont.
Scioto	Edw. McCowen, Portsmouth.
Seneca	J. E. Sherck, Tiffin.
Shelby	W. E. Partington, Sidney.
Stark	J. J. Armstrong, Canton.
Summit	C. A. Flickinger, Akron.
Trumbull	J. E. Boetticher, Warren.
Tuscarawas	Chas. Barthelmeh, New Philadelphia.
Union	D. H. Sellers, Marysville.
Van Wert	J. A. Greulach, Van Wert.
Vinton	C. H. Copeland, McArthur.
Warren	F. B. Harris, Lebanon.
Washington	M. C. Smith, Marietta.
Wayne	G. U. Baumgardner, Wooster.
Williams	W. A. Salter, Bryan.
Wood	H. E. Hall, Bowling Green.
Wyandot	James H. Grove, Upper Sandusky.
OKLAHOMA.	
Adair	W. W. Kimbrough, Stilwell.
Alfalfa	Charles C. Wolfe, Cherokee.
Atoka	J. B. Earle, Atoka.
Beaver	Granville T. Ayres, Beaver.
Beckham	D. P. Lowe, Sayre.
Blaine	Mrs. Lloyd C. Smith, Watonga.
Bryan	R. K. McIntosh, Durant.
Caddo	C. W. Rasure, Anadarko.
Canadian	John L. Rice, El Reno.
Carter	G. W. Coffman, Ardmore.
Cherokee	J. Norwood Peterson, Tahlequah.
Choctaw	J. T. Reed, Hugo.
Cimarron	Mrs. Zilpha French, Boise City.
Cleveland	W. R. Clark, Norman.
Coal	J. M. Cusenberry, Coalgate.
Comanche	J. A. Johnson, Lawton.
Cotton	J. Whitt Johnson, Walter.
Craig	Tom W. Smith, Vinita.
Creek	Helen Fitchel, Sapulpa.
Custer	Fred E. La Rue, Arapaho.
Delaware	Clark Bell, Jay.
Dewey	Gertrude Thomas, Taloga.
Ellis	Mrs. L. M. Lee, Arnett.
Garfield	Jas. W. Tyler, Enid.
Garvin	W. Cromwell, Pauls Valley.
Grady	M. H. Shepard, Chickasha.
Grant	John W. Williams, Medford.
Greer	M. C. Butler, Mangum.
Harmon	Harry C. Hicks, Hollis.
Harper	W. D. Drake, Buffalo.
Haskell	J. J. Powell, Stigler.
Hughes	V. H. Durham, Holdenville.
Jackson	W. T. Clark, Altus.
Jefferson	J. M. Dyer, Waurika.
Johnston	W. W. Van Noy, Tishomingo.
Kay	A. D. Kersey, Newkirk.
Kingfisher	Mrs. Sara Liston, Kingfisher.
Kiowa	J. B. Hendrix, Hobart.
Latimer	Carrie Chandler, Wilburton.
Le Flore	J. Arthur Skinner, Poteau.
Lincoln	O. W. Bass, Chandler.
Logan	Margaret Doolittle, Guthrie.
Love	Martha Daves, Marietta.
McClain	Beatrice Ward, Purcell.
McCurtain	L. N. Gray, Idabell.
McIntosh	R. J. Mullins, Eufaula.
Major	Louesa Specht, Fairview.
Marshall	J. R. McClendon, Madill.
Mayes	Carlotta Archer, Pryor.
Murray	Nola R. Hill, Sulphur.
Muskogee	W. A. Battles, Muskogee.
Noble	Geo. F. Dennis, Perry.
Nowata	E. R. Bell, Nowata.
Okfuskee	Geo. F. Durham, Okemah.
Oklahoma	Mrs. Anna Burks-Love, Oklahoma.
Okmulgee	R. G. Creekmore, Okmulgee.
Osage	John N. Porter, Pawhuska.
Ottawa	J. M. Rowley, Miami.
Pawnee	Leo B. Smith, Pawnee.
Payne	John R. Heisser, Stillwater.
Pittsburg	T. T. Lewis, McAlester.
Pontotoc	A. Floyd, Ada.
Pottawatomie	H. M. Fowler, Tecumseh.
Pushmataha	W. C. Payne, Antlers.
Roger Mills	W. A. Adams, Cheyenne.
Rogers	A. K. Ross, Claremore.
Seminole	W. A. Billingsley, Wewoka.
Sequoyah	Fred Mershon, Sallisaw.
Stephens	J. A. Carnes, Duncan.
Texas	F. P. Stultz, Guymon.
Tilman	T. O. Davis, Frederick.
Tulsa	Mrs. Minette Hedges, Tulsa.
Wagoner	Mrs. Fern H. Sizer, Wagoner.
Washington	Helen L. Dunaway, Bartlesville.
Washita	Albert Eaton, Cordell.
Woods	C. J. Godfrey, Alva.
Woodward	W. L. Pittman Woodward.
OREGON.	
Baker	Elmetta Bailey, Baker.
Benton	R. E. Cannon, Corvallis.
Clackamas	J. E. Calavan, Oregon City.
Clatsop	O. H. Byland, Astoria.
Columbia	J. W. Allen, St. Helens.
Coos	R. E. Baker, Coquille.
Crook	J. E. Myers, Prineville.
Curry	W. M. Kent, Gold Beach.
Deschutes	J. Alton Thompson, Bend.
Douglas	O. C. Brown, Roseburg.
Gilliam	J. C. Sturgill, Condon.
Grant	W. W. Austen, Hamilton.
Harney	Mrs. Frances Clark, Burns.
Hood River	L. B. Gibson, Hood River.
Jackson	G. W. Ager, Jacksonville.
Jefferson	Mrs. Lillian Watts, Madras.
Josephine	Mrs. Alice M. Bacon, Grants Pass.
Klamath	Edna I. Wells, Klamath Falls.
Lake	C. E. Oliver, Lakeview.
Lane	E. J. Moore, Eugene.
Lincoln	R. P. Goin, Toledo.
Linn	Mrs. Ida M. Cummings, Albany.
Malheur	Fay Clark, Vale.
Marion	W. M. Smith, Salem.
Morrow	Mrs. Lena S. Shurte, Heppner
Multnomah	W. C. Alderson, Portland.
Polk	Fred S. Crowley, Dallas.
Sherman	F. E. Fagan, Moro.
Tillamook	G. B. Lamb, Tillamook.
Umatilla	W. W. Green, Pendelton.
Union	Mrs. A. E. Ivanhoe, La Grande
Wallowa	J. C. Conley, Enterprise.
Wasco	C. T. Bonney, The Dalles.
Washington	N. A. Frost, Hillsboro.
Wheeler	H. J. Simmons, Fossil.
Yamhill	S. S. Duncan, McMinnville.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
PENNSYLVANIA.	
Adams	H. Milton Roth, Gettysburg.
Allegheny	Saml. Hamilton, Wilkinsburg.
Armstrong	C. M. Heilman, Kittanning.
Beaver	David C. Locke, Beaver.
Bedford	Lloyd H. Hinkle, Bedford.
Berks	E. M. Rapp, Reading.
Blair	T. S. Davis, Altoona.
Bradford	L. J. Russell, Towanda.
Bucks	J. H. Hoffman, Doylestown.
Butler	F. A. McClung, Butler.
Cambria	M. S. Bentz, Ebensburg.
Cameron	C. E. Plasterer, Emporium.
Carbon	J. J. Bevan, Mauch Chunk.
Center	D. O. Etters, State College.
Chester	Thomas A. Bock, Westchester.
Clarion	N. E. Heeter, Clarion.
Clearfield	Cyrus A. Weisgerber, Clearfield.
Clinton	I. N. McCloskey, Lock Haven
Columbia	Wm. W. Evans, Bloomsburg
Crawford	P. D. Blair, Meadville.
Cumberland	J. Kelso Green, Carlisle.
Dauphin	Frank E. Shambaugh, Lykens.
Delaware	A. G. C. Smith, Media.
Elk	J. W. Sweeney, St. Marys.
Erie	I. H. Russell, North East.
Fayette	John S. Carroll, Uniontown.
Forest	J. O. Carson, Tionesta.
Franklin	L. E. Smith, Chambersburg.
Fulton	J. Emery Thomas, McConnellsburg.
Greene	H. D. Freeland, Waynesburg.
Huntingdon	L. E. Boyer, Huntingdon.
Indiana	J. F. Chapman, Indiana.
Jefferson	Charles A. Anderson, Brookville.
Juniata	C. E. Kauffman, McAllisterville.
PENNSYLVANIA—continued.	
Lackawanna	J. C. Taylor, Scranton.
Lancaster	Daniel Fleisher, Lancaster.
Lawrence	Charles F. Ball, Mahoningtown, R. 8.
Lebanon	John W. Snoke, Lebanon.
Lehigh	Mervin J. Wertman, Orefield.
Luzerne	F. P. Hopper, Wilkes-Barre.
Lycoming	G. B. Milnor, Muncy.
McKean	C. W. Lillibridge, Smethport.
Mercer	H. E. McConnell, Mercer.
Mifflin	Lawrence Ruble, McVeytown.
Monroe	Frank Koehler, Stroudsburg.
Montgomery	J. H. Landis, Norristown.
Montour	Fred W. Diehl, Danville.
Northampton	Geo. A. Grim, Nazareth.
Northumberland	I. H. Mauser, Sunbury.
Perry	D. A. Kline, New Bloomfield.
Pike	L. Westbrook, Matamoras.
Potter	A. P. Akeley, Coudersport.
Schuylkill	L. Seltzer, Pottsville.
Snyder	T. A. Stetler, Middleburg.
Somerset	John H. Fike., Somerset.
Sullivan	Harry R. Henning, Lopez.
Susquehanna	F. H. Taylor, Montrose.
Tioga	Morton F. Jones, Blossburg.
Union	Wm. W. Spigelmyer, Mifflinburg.
Venango	D. W. Armstrong, Franklin.
Warren	C. S. Knapp, Warren.
Washington	L. R. Crumrine, Washington.
Wayne	J. J. Koehler, Honesdale.
Westmoreland	Robt. C. Shaw, Greensburg.
Wyoming	John E. Morgan, Tunkhannock.
York	C. W. Stine, York.

Division.	Division superintendent.
PHILIPPINE ISLANDS.	
Albay	Thomas H. Cassidy, Albay.
Antique	Candido Alcazar (acting), San Jose.
Bataan	Benito Pangilinan (acting), Balanga.
Batangas	H. M. Wagenblass, Batangas.
Bohol	O. H. Charles, Tagbilaran.
Bulacan	R. L. Barron, Malolos.
Cagayan	W. B. Beard, Tuguegarao.
Camarines	Benjamin Levin, Naga.
Capiz	F. E. Hemenway, Capiz.
Cavite	William S. Fickes, Cavite.
Cebu	S. J. Wright, Cebu.
Ilocos Norte	John M. Roberts (acting), Laoag.
Ilocos Sur	Edward J. Murphy, Vigan.
Iloilo	James C. Scott, Iloilo.
Isabela	Alexander M. Wiley (acting), Ilagan.
Laguna	R. G. McLeod, Santa Cruz.
Leyte	S. Colin Campbell (acting), Tacloban.
Manila	H. A. Bordner, Manila.
Mindoro	Leodegario Victorino (acting), Calapan.
Misamis	Artie A. House (acting), Cagayan.
Mountain	C. Skattebol, Baguio.
Nueva Ecija	L. P. Willis (acting), Cabanatuan.
Nueva Vizcaya	Daniel E. Clancy (acting), Bayombong.
Occidental Negros	Ralph H. Worsley (acting), Bacolod.
PHILIPPINE ISLANDS—con.	
Oriental Negros	John C. Early (acting), Dumaguete.
Palawan	S. C. Kelleher (acting), Cuyo.
Pampanga	Roy K. Gilmore, San Fernando.
Pangasinan	A. W. Cain, Lingayen.
Rizal	F. J. Waters, Pasig.
Romblon	Q. San Buenaventura (acting), Romblon.
Samar	B. Fielden Nutter (acting), Catbalogan.
Sorsogon	G. W. Satterthwaite, Sorsogon.
Surigao	Walter G. M. Buckisch (acting), Surigao.
Tarlac	Adam C. Derkum, Tarlac.
Tayabas	Gilbert S. Perez (acting), Lucena.
Union	Honorio Poblador, San Fernando.
Zambales	Antonio Nera (acting), Iba.
Department of Mindanao and Sulu.	
Agusan	Charles S. Crowther (acting), Butuan.
Bukidnon	George C. Kindley (acting), Malaybalay.
Cotabato	Arthur E. Harpst, Cotabato.
Davao	Henry C. Stanton (acting), Davao.
Lanao	John J. Heffington, Dansalan.
Sulu	J. W. Light, Jolo.
Zamboanga	Lloyd G. Kirby (acting), Zamboanga.

XII.—County and Other Local Superintendents of Schools—Continued.

Division.	Division superintendent.
PORTO RICO.	
Adjuntas	Luis A. Padilla.
Aguadilla	Santiago Veve, jr.
Aibonito	Don W. Snow.
Anasco	R. H. Spicer.
Arecibo	Manuel G. Nin.
Arroyo	Ismael Maldonado.
Barros	
Bayamon	Manuel Negron Collazo.
Cabo Rojo	William F. Littlefield.
Caguas	Gerardo Selles y Sola.
Camuy	Juliet A. Casey.
Carolina	Beatriz Lassalle.
Cayey	Alan H. Linch.
Ciales	
Coamo	Harold S. Corlett.
Comerio	Oscar Porrata, jr.
Corozal	Francisco Gaztambide.
Fajardo	Servando Rabainne.
Guayama	Cecilio Torres Reyes.
Guayanilla	Hatuey Diaz Baldorioty.
Humacao	Marshall D. Rice.
Isabela	Carlos Rivera Ufret.
Juana Diaz	Charles J. Kelley.
Juncos	Celestino Benitez.
Lares	R. A. Segarra.
Manati	Joseph C. Morin.
Maricao	Pedro P. Aran.
Mayaguez	R. B. Barlow.
Naguabo	Valeriano Flores y Robles.
Ponce	John P. Blanco.
Rio Grande	Samuel D. W. Mills.
Rio Piedras	Cecil E. Stevens.
Salinas	Juan E. Castillo.
San German	Judson U. McGuire.
San Juan	George V. Keelan.
San Sebastian	Herminio Rodriguez.
Toa Baja	Jose B. Fontanes.
Utuado	Jose C. Rosario.
Vega Baja	Victor M. Suarez.
Yabucoa	Bernardo Huyke.
Yauco	Charles E. Miner.

Town.	Town superintendent.
RHODE ISLAND.[1]	
Charlestown	S. Hussey Reed, Westerly.
Exeter	George E. Money, Libertv.
Foster	Clovis H. Mitchell, North Scituate.
Glocester	Irving C. Mitchell, Greenville.
Jamestown	Clovis H. Mitchell, North Scituate.
Little Compton	J. Webster Coombs, Little Compton.
Middletown	Joel Peckham, Aquidneck.
Narragansett	William A. Brady, Narragansett Pier.
New Shoreham	Walter E. Young, Block Island.
Richmond	Charles J. Greene, Kenyon.
West Greenwich	Joseph Rose, Washington.

County.	County superintendent.
SOUTH CAROLINA.	
Abbeville	W. J. Evans, Abbeville.
Aiken	H. R. Chapman, Aiken.
Anderson	J. B. Felton, Anderson.
Bamberg	R. W. D. Rowell, Bamberg.
Barnwell	H. J. Crouch, Barnwell.
Beaufort	W. M. Steinmeyer, Beaufort.
Berkeley	I. B. Marshe, Moncks Corner.
Calhoun	B. F. Keller, St. Matthews.
Charleston	H. H. McCarley, Charleston.
Cherokee	W. C. McArthur, Gaffney.
Chester	W. D. Knox, Chester.
Chesterfield	J. A. Knight, Chesterfield.
Clarendon	E. J. Browne, Manning.
Colleton	H. S. Strickland, Walterboro.
Darlington	D. L. Lewis, Darlington.
Dillon	R. S. Rogers, Dillon.
Dorchester	J. A. Parler, St. George.
Edgefield	W. W. Fuller, Edgefield.
Fairfield	W. W. Turner, Winnsboro.
Florence	A. H. Gasque, Florence.
Georgetown	J. W. Doar, Georgetown.
Greenville	M. C. Barton, Greenville.
Greenwood	T. E. Dorn, Greenwood.
Hampton	J. W. Rouse, Hampton.
Horry	M. J. Bullock, Conway.
Jasper	S. B. Owens, Ridgeland.
Kershaw	I. J. McKenzie, Camden.
Lancaster	V. A. Lingle, Lancaster.
Laurens	J. H. Sullivan, Laurens.
Lee	J. T. Munnerlyn, Bishopville.
Lexington	A. D. Martin, Lexington.
McCormick	T. J. Price, McCormick.
Marion	S. J. Wall, Marion.
Marlboro	A. L. Easterling, Bennettsville.
Newberry	C. M. Wilson, Newberry.
Oconee	Thomas A. Smith, Walhalla.
Orangeburg	L. W. Livingston, Orangeburg.
Pickens	R. T. Hallum, Pickens.
Richland	O. D. Seay, Columbia.
Saluda	F. O. Black, Saluda.
Spartanburg	B. S. Haynes, Spartanburg.
Sumter	J. H. Haynesworth, Sumter.
Union	Jas. H. Hope, Union.
Williamsburg	N. D. Lesesne
York	J. E. Carroll, York.
SOUTH DAKOTA.	
Aurora	Elva Howey, Plankinton.
Beadle	Hortense Babbitt, Huron.
Bennett	Clara Parlasca, Martin.
Bon Homme	J. W. Whiting, Tyndall.
Brookings	Herbert Blakely, Brookings.
Brown	R. N. Axford, Aberdeen.
Brule	Evalena Rossman, Chamberlain.
Buffalo	Julia Hart, Gann Valley.
Butte	Mae Scotney, Bellefourche.
Campbell	W. A. Bentley, Mound City.
Charles Mix	Ruth E. Sabin, Lake Andes.
Clark	Katie Sprague, Clark.

[1] See also p. 87.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
SOUTH DAKOTA—continued.	
Clay	F. Belle Conrow, Vermilion.
Codington	Sara Reeve, Watertown.
Corson	Frances Delaney, McIntosh.
Custer	Ethel Montgomery, Custer.
Davison	Emma McClintock, Mitchell.
Day	Ira Howell, Webster.
Deuel	A. W. Munson, Clear Lake.
Dewey	J. A. G. Smith, Timber Lake.
Douglas	Geo. E. Sanders, Armour.
Edmunds	Lillian Theil, Ipswich.
Fall River	Helen Brelsford, Hot Springs.
Faulk	Mrs. Susie P. Swartout, Faulkton.
Grant	Sidney Barriclow, Milbank.
Gregory	K. H. Cressman, Burke.
Haakon	Jennie O'Neal, Philip.
Hamlin	Elliott A. Parker, Hayti.
Hand	Jessie Moncur, Miller.
Hanson	Jessie Robertson, Alexandria.
Harding	Minnie E. Stegner, Buffalo.
Hughes	Daisy Solberg, Pierre.
Hutchinson	Benj. Kaufmann, Freeman.
Hyde	Pauline D. Gray, Highmore.
Jackson	L. S. Du Bois, Kadoka.
Jerauld	Ruby C. Bromwell, Wesington Springs.
Jones	L. M. Powers, Murdo.
Kingsbury	A. A. Coulson, De Smet.
Lake	Alice Rippe, Madison.
Lawrence	Nellie Warren, Deadwood.
Lincoln	H. M. Dale, Canton.
Lyman	Ben Bower, Oacoma.
McCook	Laura Bouchie, Salem.
McPherson	W. K. Bishop, Leola.
Marshall	Jessie Stewart, Britton.
Meade	Harry L. Smith, Sturgis.
Mellette	T. H. Greene, White River.
Miner	Edmund Steele, Howard.
Minnehaha	Mrs. Anna M. Eddy, Sioux Falls.
Moody	Alice Coonrod, Flandreau.
Pennington	Adella S. Beach, Rapid City.
Perkins	A. A. Hale, Bison.
Potter	Margaret Briscoe, Gettysburg.
Roberts	J. W. Thomas, Sisseton.
Sanborn	A. J. Smalley, Woonsocket.
Spink	E. H. Kahl, Redfield.
Stanley	Roberta Smith, Fort Pierre.
Sully	Jesse T. Hayes, Onida.
Tripp	Mrs. Sadie Brownlow, Winner.
Turner	Nellie I. Appleby, Parker.
Union	Alice A. Tollefson, Elk Point.
Walworth	E. H. Noteboom, Selby.
Yankton	Geo. A. Clark, Yankton.
Ziebach	Walter R. Menzel, Dupree.
TENNESSEE.	
Anderson	W. H. Miller, Clinton.
Bedford	Louis Wilhoite, Shelbyville.
Benton	E. J. Clement, Camden.
Bledsoe	John M. Gerren, Pikeville.
Blount	Nancy Lee Broady, Maryville.
Bradley	S. Y. Adcock, Cleveland.
Campbell	Joe Jennings, Jacksboro.
Cannon	W. H. Finley, Woodbury.
Carroll	D. T. Barnhill, Huntingdon.
Carter	J. R. Ritchie, Elizabethton.
Cheatham	P. H. Duke, Ashland City.
Chester	N. B. Hardeman, Henderson.
Claiborne	N. Otto Irwin, Tazewell.
Clay	R. C. Ledbetter, Willow Grove.
Cocke	O. L. McMahan, Newport.
Coffee	J. H. Leming, Manchester.
Crockett	T. E. Lowery, Alamo.
Cumberland	J. S. Cline, Crossville.
Davidson	W. C. Dodson, Nashville.
Decatur	Geo. L. Wortham, Decaturville.

County.	County superintendent.
TENNESSEE—con.	
Dekalb	Emmons Givan, Liberty.
Dickson	R. E. Corlew, Charlotte.
Dyer	R. M. Grills, Dyersburg.
Fayette	W. T. Loggins, Somerville.
Fentress	W. R. Storie, Jamestown.
Franklin	W. J. Arnold, Winchester.
Gibson	J. B. Cummings, Trenton.
Giles	B. H. Gaultney, Pulaski.
Grainger	H. G. Farmer, Rutledge.
Greene	Joel N. Pierce, Greeneville.
Grundy	J. L. Rollins, Altamont.
Hamblen	W. S. Ivy, Morristown.
Hamilton	J. W. Abel, Chattanooga.
Hancock	George Jaynes, Sneedville.
Hardeman	J. D. Turner, Bolivar.
Hardin	J. C. Smith, Saltillo.
Hawkins	Roy Myers, Rogersville.
Haywood	F. R. Ogilvie, Brownsville.
Henderson	O. E. Holmes, Lexington.
Henry	Joe Routon, Paris.
Hickman	Herman Pratt, Centreville.
Houston	D. J. McAulay, Erin.
Humphreys	W. H. Knight, Waverly.
Jackson	W. L. Dixon, Gainesboro.
James	W. H. Roark, Ooltewah.
Jefferson	R. C. McAndrews, Dandridge.
Johnson	J. L. Shoun, Mountain City.
Knox	W. L. Stookesbury, Knoxville.
Lake	Thurman McCain, Tiptonville.
Lauderdale	G. G. McLeod, Ripley.
Lawrence	Napoleon Lumpkin, Lawrenceburg.
Lewis	Mrs. H. T. Poore, Hohenwald.
Lincoln	Jesse Hardin, Fayetteville.
Loudon	J. T. Henderson, Loudon.
McMinn	Austin Hanks, Athens.
McNairy	A. H. Grantham, Bethel Springs.
Macon	O. G. Davis, Lafayette.
Madison	W. A. Malone, Jackson.
Marion	D. A. Tate, South Pittsburg.
Marshall	J. G. Stinson, Lewisburg.
Maury	Jno. P. Graham, Culleoka.
Meigs	J. H. Bennett, Decatur.
Monroe	A. C. Watson, Madisonville.
Montgomery	A. W. Jobe, Clarksville.
Moore	Cora Wiseman, Lynchburg.
Morgan	E. R. Williams, Wartburg.
Obion	B. A. Vaughn, Union City.
Overton	Geo. O. Lea, Livingston.
Perry	R. H. Gray, Beardstown.
Pickett	W. J. Babb, Byrdstown.
Polk	W. B. Rucker, Benton.
Putnam	J. M. Hatfield, Cookeville.
Rhea	Wm. Hilleary, Dayton.
Roane	D. S. Tanner, Kingston.
Robertson	O. H. Bernard, Springfield.
Rutherford	W. N. Elrod, Murfreesboro.
Scott	W. W. Walker, Huntsville.
Sequatchie	W. V. Freiley, Dunlap.
Sevier	A. O. De Lozier, Sevierville.
Shelby	Miss Charl Williams, Memphis.
Smith	Lee Huffines, Carthage.
Stewart	W. C. Howell, Dover.
Sullivan	J. C. Akard, Blountville.
Sumner	T. W. Hunter, Gallatin.
Tipton	H. H. Robison, Covington.
Trousdale	T. B. Woodmore, Hartsville.
Unicoi	Lizzie Roberts, Erwin.
Union	V. W. Palmer, Sharps Chapel.
Van Buren	H. E. Scott, Spencer.
Warren	E. B. Etter, McMinnville.
Washington	J. C. Berry, Jonesboro.
Wayne	Jno. W. Gallion, Waynesboro.
Weakley	F. Y. Fuqua, Dresden.
White	J. W. McPeak, Sparta.
Williamson	Fred J. Page, Franklin.
Wilson	B. Y. Neal, Watertown.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
TEXAS.	
Anderson	E. F. Rollins, Palestine.
Andrews	A. N. Brown, Andrews.
Angelina	J. O. Satternwhite, Lufkin.
Aransas	F. Stevens, Rockport.
Archer	J. S. Melugin, Archer City.
Armstrong	H. L. Mobley, Claude.
Atascosa	H. D. Rhode, Jourdanton.
Austin	O. M. Brown, jr., Bellville.
Bailey	B. D. Woodlee, Dimmitt.
Bandera	Sam O'Bryant, Bandera.
Bastrop	Nat G. Mitchell, Bastrop.
Baylor	T. J. North, Seymour.
Bee	Patti Reagan, Beeville.
Bell	P. L. Stone, Belton.
Bexar	P. F. Stewart, San Antonio.
Blanco	Wm. Martiny, Johnson City.
Borden	C. E. Reeder, Gail.
Bosque	H. C. Powell, Meridian.
Bowie	C. A. Bonham, Boston.
Brazoria	R. R. Sebring, Angleton.
Brazos	W. L. Powers, Bryan.
Brewster	A. M. Turney, Alpine.
Briscoe	C. B. Richards, Silverton.
Brooks	J. A. Brooks, Falfurrias.
Brown	R. A. McLesky, Brownwood.
Burleson	T. A. Schoppe, Caldwell.
Burnet	J. R. Smith, Burnet.
Caldwell	John N. Gambrell, jr., Lockhart.
Calhoun	F. M. Dudgeon, Port Lavaca.
Callahan	S. E. Settle, Baird.
Cameron	W. F. Jourdan, Brownsville.
Camp	W. N. Tucker, Pittsburg.
Carson	A. Callaghan, Panhandle.
Cass	R. H. Harvey, Linden.
Castro	B. D. Woodlee, Dimmitt.
Chambers	W. B. Gordon, Anahuac.
Cherokee	H. T. Brown, Rusk.
Childress	O. V. Vernon, Childress.
Clay	J. R. Carter, Henrietta.
Cochran	Roscoe Wilson.
Coke	D. I. Durham, Robert Lee.
Coleman	J. C. Griffen, Coleman.
Collin	W. S. Smith, McKinney.
Collingsworth	A. C. Nicholson, Wellington.
Colorado	B. H. Meinert, Columbus.
Comal	Adolf Stein, New Braunfels.
Comanche	Mrs. J. E. Deely, Comanche.
Concho	Jas. E. Howze, Paint Rock.
Cooke	F. J. Clement, Gainesville.
Coryell	J. C. McKelvy, Gatesville.
Cottle	W. O. Jones, Paducah.
Crockett	C. E. Davidson, Ozona.
Crosby	Pink L. Parrish, Crosbyton.
Culberson	J. C. Hunter, Van Horn.
Dallam	Lawrence Ashby, Dalhart.
Dallas	B. M. Hudspeth, Dallas.
Dawson	J. E. Garland, Lamesa.
Deaf Smith	J. A. Hughes, Hereford.
Delta	W. B. Wheeler, Cooper.
Denton	L. H. Edwards, Denton.
De Witt	L. G. Covey, Cuero.
Dickens	Walter L. Powell, Dickens.
Dimmit	J. O. Rouse, Carrizo Springs.
Donley	J. H. O'Neall, Clarendon.
Duval	J. F. Clarkson, San Diego.
Eastland	R. E. Sikes, Eastland.
Ector	E. V. Graham, Odessa.
Edwards	A. P. Allison, Rock Springs.
Ellis	W. S. Ely, Waxahachie.
El Paso	Myra Winkler, El Paso.
Erath	Maud Cunningham, Stephensville.
Falls	G. A. Pringle, Marlin.
Fannin	Frank Young, Bonham.
Fayette	G. A. Stierling, La Grange.
Fisher	W. C. Martin, Roby.
Floyd	W. B. Clark, Floydada.
Foard	G. L. Burk, Crowell.
Fort Bend	Herman Beyer, Richmond.
Franklin	O. L. Reaves, Mount Vernon.
Freestone	Carl Williford, Fairfield.
Frio	A. J. Cook, Pearsall.
Gaines	T. O. Stark, Seminole.
Galveston	T. B. Blackstone, Galveston.
Garza	A. H. Anderson, Post City.
Gillespie	A. H. Kneese, Fredericksburg.
Glasscock	C. W. Cunningham, Garden City.
Goliad	G. M. Jones, Goliad.
Gonzales	J. C. Cochran, Gonzales.
Gray	T. M. Wolfe, Lefors.
Grayson	J. A. Giles, Sherman.
Gregg	Walter E. Jones, Longview.
Grimes	M. A. McDonald, Anderson.
Guadalupe	J. F. Saegert, Seguin.
Hale	Charles Clement, Plainview.
Hall	M. E. McNaly, Memphis.
Hamilton	A. T. Jones, Hamilton.
Hansford	B. V. Andrews, Hansford.
Hardeman	L. M. Davis, Quanah.
Hardin	R. P. Gibbs, Kountze.
Harris	L. L. Pugh, Houston.
Harrison	C. W. LaGrone, Marshall.
Hartley	J. H. Phillips, Channing.
Haskell	J. R. Hutto, Haskell.
Hays	John H. Saunders, San Marcos.
Hemphill	J. L. Jennings, Canadian.
Henderson	W. R. Thomas, Athens.
Hidalgo	J. S. Bunn, Edinburg.
Hill	Mrs. Leon Culberson, Hillsboro.
Hockley	Roscoe Wilson, Lubbock.
Hood	T. H. Hines, Granbury.
Hopkins	Dan J. Thompson, Sulphur Springs.
Houston	Jno. N. Snell, Crockett.
Howard	S. E. Penix, Big Springs.
Hunt	E. P. Thomas, Greenville.
Hutchinson	C. Travis, Plemons.
Irion	W. F. Fikes, Sherwood.
Jack	J. W. Fulcher, Jacksboro.
Jackson	W. W. McCrary, Edna.
Jasper	B. T. Withers, Jasper.
Jeff Davis	W. J. Ward, Fort Davis.
Jefferson	Homer C. Daniel, Beaumont.
Jim Hogg	A. M. Brumfield, Hebbronville.
Jim Wells	T. L. Barnhouse, Alice.
Johnson	G. S. Tomas, Cleburne.
Jones	C. L. Prichard, Anson.
Karnes	L. P. Lightsey, Karnes City.
Kaufman	Florence Conner, Kaufman.
Kendall	J. W. Lawhon, Boerne.
Kent	B. P. Vardiman, Clairemont.
Kerr	Lee Wallace, Kerrville.
Kimble	J. B. Randolph, Junction City.
King	J. F. Witherspoon, Guthrie.
Kinney	Joseph Veltman, Brackettville.
Kleburg	Ben. F. Wilson, Kingsville.
Knox	J. M. Morgan, Benjamin.
Lamar	J. A. Fulks, Paris.
Lamb	L. E. Ensign, Olton.
Lampasas	J. F. Higgins, Lampasas.
La Salle	G. A. Welhausen, Cotulla.
Lavaca	William Eilers, Hallettsville.
Lee	C. M. Bishop, Giddings.
Leon	W. R. Moore, Centerville.
Liberty	P. S. Newberry, Liberty.
Limestone	T. L. Pritchard, Groesbeck.
Lipscomb	W. H. Sewell, Lipscomb.
Live Oak	W. W. Caves, Oakville.
Llano	Ernest Moore, Llano.
Loving	Howell Johnson, Pecos.
Lubbock	Roscoe Wilson, Lubbock.
Lynn	C. H. Cain, Tahoka.
McCulloch	W. M. Deans, Brady.
McLennan	R. L. Abbott, Waco.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
TEXAS—continued.	
McMullen	D. B. Martin, Tilden.
Madison	J. T. Cony, Madisonville.
Marion	Alice Emmert, Jefferson.
Martin	A. G. Odam, Stanton.
Mason	Glenn W. Smith, Mason.
Matagorda	W. F. Pack, Bay City.
Maverick	Ben V. King, Eagle Pass.
Medina	W. N. Saathoff, Hondo.
Menard	J. D. Scruggs, Menard.
Midland	J. M. De Armond, Midland.
Milam	J. F. Chadwick, Cameron.
Mills	R. B. Weaver, Goldthwaite.
Mitchell	J. H. Bullock, Colorado.
Montague	I. B. Williams, Montague.
Montgomery	Bessie Smith Meredith, Conroe.
Moore	J. W. Fox, Dumas.
Morris	G. E. Shive, Daingerfield.
Motley	A. B. Crane, Matador.
Nacogdoches	G. B. Layton, Nacogdoches.
Navarro	J. B. Davis, Corsicana.
Newton	J. B. Stripling, Newton.
Nolan	A. D. Ellis, Sweetwater.
Nueces	Nat Benton, Corpus Christi.
Ochiltree	R. T. Carrell, Ochiltree.
Oldham	Wm. Balfour, Tascosa.
Orange	Allie Bland, Orange.
Palo Pinto	E. L. Pitts, Palo Pinto.
Panola	R. E. Carswell, Carthage.
Parker	W. V. Shadle, Weatherford.
Parmer	James D. Hamlin, Farwell.
Pecos	Howell Johnson, Fort Stockton.
Polk	J. H. Taylor, Livingston.
Potter	W. C. Gee, Amarillo.
Presidio	W. M. Ellison, María.
Rains	O. H. Rhodes, Emory.
Randall	A. R. Flesher, Canyon.
Reagan	W. W. Pittman, Stiles.
Real	D. D. Thompson, Leakey.
Red River	S. E. Clark, Clarksville.
Reeves	Jas. F. Ross, Pecos.
Refugio	Leslie Adkins, Refugio.
Roberts	J. E. Kinney, Miami.
Robertson	Clara Story, Franklin.
Rockwall	J. W. Reese, Rockwall.
Runnels	E. L. Hagan, Ballinger.
Rusk	G. C. Padgett, Henderson.
Sabine	Jno. Harper, Hemphill.
San Augustine	Willie E. Mathews, San Augustine.
San Jacinto	Wm. McMurrey, Cold Springs.
San Patricio	C. E. Wade, Sinton.
San Saba	Dor W. Brown, San Saba.
Schleicher	Geo. M. Brown, Eldorado.
Scurry	O. L. Howell, Snyder.
Shackelford	J. A. King, Albany.
Shelby	J. B. Hammer, Center.
Sherman	J. W. Elliott, Stratford.
Smith	E. J. Burns, Tyler.
Somervell	S. G. Tankersley, Glen Rose.
Starr	Sam P. Vale, Rio Grande City.
Stephens	Jesse R. Smith, Breckenridge.
Sterling	Jeff D. Ayres, Sterling City.
Stonewall	M. Sadie Abbott, Aspermont.
Sutton	E. S. Briant, Sonora.
Swisher	W. S. Tomlinson, Tulia.
Tarrant	G. T. Bludworth, Fort Worth.
Taylor	J. S. Smith, Abilene.
Terrell	T. R. Kuykendall, Sanderson.
Terry	W. W. Price, Brownfield.
Throckmorton	D. F. Reynolds, Throckmorton.
TEXAS—continued.	
Titus	Jno. Myers, Mount Pleasant.
Tom Green	C. E. Springstein, San Angelo.
Travis	Leon Halden, Austin.
Trinity	J. C. Ingram, Groveton.
Tyler	G. E. Neel, Woodville.
Upshur	B. B. Elder, Gilmer.
Upton	H. B. Griffith, Upland.
Uvalde	Julia Victor, Uvalde.
Valverde	Josephine Jones, Del Rio.
Van Zandt	C. H. Cox, Canton.
Victoria	G. M. Crutsinger, Victoria.
Walker	C. A. Bennick, Huntsville.
Waller	Alice Cameron, Hempstead.
Ward	Burch Carson, Barstow.
Washington	W. F. A. Boemer, Brenham.
Webb	B. Richardson, Laredo.
Wharton	J. R. Peale, Wharton.
Wheeler	L. D. Miller, Wheeler.
Wichita	E. C. Hall, Wichita Falls.
Wilbarger	L. A. Hallar, Vernon.
Willacy	J. S. Thornham, Sarita.
Williamson	Mrs. W. H. Hanna, Georgetown.
Wilson	J. E. Swift, Floresville.
Winkler	A. T. Crawford, Kermit.
Wise	Brandon Trussell, Decatur.
Wood	J. R. Clark, Quitman.
Yoakum	R. P. Moreland, Plains.
Young	D. K. Lyon, Graham.
Zapata	A. P. Spohn, Zapata.
Zavala	O. A. Stubbs, Batesville.
UTAH.	
Beaver	K. G. Maeser, Beaver.
Boxelder	C. H. Skidmore, Brigham City.
Cache	R. V. Larson, Logan.
Carbon	Orson Ryan, Price.
Davis	H. C. Burton, Farmington.
Duchesne	J. A. Washburn, Duchesne.
Emery	W. T. Reid, Orangeville.
Garfield	F. G. Gardiner, Panguitch.
Grand	D. S. L. McCorkle, Moab.
Iron	L. J. Nuttall, jr., Cedar City.
Juab:	
Juab dist	Ray Stewart, Nephi.
Tintic dist	I. L. Williamson, Eureka.
Kane	R. C. Merrill, Kanab.
Millard	R. E. Hammond, Fillmore.
Morgan	Wm. Abplanalp, Morgan.
Piute	D. H. Robinson, Junction.
Rich	G. N. Weston, Laketown.
Salt Lake:	
Granite dist	J. M. Mills, Salt Lake City.
Jordan dist	D. C. Jensen, Midvale.
San Juan	J. B. Harris, Grayson.
Sanpete:	
North dist	J. W. Anderson, Mt. Pleasant.
South dist	E. T. Reid, Manti.
Sevier	A. J. Ashman, Richfield.
Summit:	
North dist	W. H. Manning, Coalville.
South dist	Joseph Richards, Kamas.
Tooele	J. U. Hicks, Tooele.
Uintah	Earl Thompson, Vernal.
Utah:	
Alpine dist	J. H. Walker, Lehi.
Nebo dist	J. P. Creer, Spanish Fork.
Wasatch	D. A. Broadbent, Heber City.
Washington	W. O. Bentley, jr., St. George.
Wayne	Joseph Hickman, Loa.
Weber	W. N. Petterson, Ogden.

XII.—County and Other Local Superintendents of Schools—Continued.

Supervision district.	District superintendent.
VERMONT.[1]	
Addison County:	
Northwest district.... Addison, Ferrisburg, Monkton, Panton, Vergennes, Waltham.	H. A. Farrar, Vergennes.
Northeast district..... Bristol, Starksboro, Lincoln, New Haven.	C. R. Beeman, Bristol.
Central district..... Cornwall, Middlebury T., Middlebury I., Ripton, Weybridge, Salisbury.	Arthur W. Eddy, Middlebury.
Southwest district.... Shoreham, Bridport, Orwell, Benson.	E. L. Clark, Shoreham.
Bennington County:	
North district..... Dorset, Rupert, Pawlet.	Edward B. Hutchinson, North Bennington.
Central district..... Arlington, Shaftsbury, North Bennington I., Glastenbury, Sunderland, Manchester, Sandgate.	
Caledonia County:	
North district..... West Burke I., Burke T., Wheelock, Sheffield, Sutton, Newark, East Haven.	Garfield A. Jamieson, West Burke.
North central district. Lyndonville I., Lyndon I., Lyndon T., Danville, Kirby.	Martin E. Daniels, Lyndonville.
South central district. Barnet, Peacham, Walden, Waterford.	Harvey Burbank, East Barnet.
South district..... Wells River I., Newbury, Groton, Ryegate.	Leonard D. Smith, Wells River.
Chittenden County:	
Northwest district.... Milton I., Milton T., Westford, Fairfax, Georgia.	Charles O. Turner, Milton.
East district..... Richmond, Jericho, Underhill I., Underhill T., Bolton.	Horatio S. Read, Richmond.
Central district..... Essex Junction I., Essex T., Williston, Winooski I., Colchester.	Minnie E. Hays, Essex Junction.
South district..... Shelburne, Charlotte, South Burlington, St. George, Huntington, Hinesburg.	William G. Hartin, Burlington, R. D. No. 1.
Essex County:	
North district..... Canaan, Brighon, Norton, Lemington, Bloomfield, Brunswick.	B. E. Stover, North Stratford, N. H.
South district..... Lunenburg, Concord, Victory, Granby, Guildhall, Maidstone.	
VERMONT—continued.	
Franklin County:	
Northwest district.... Swanton, Highgate, St. Albans T.	Homer E. Hunt, Swanton.
Central district..... Enosburg Falls I., Enosburg T., Franklin, Sheldon.	Frederick W. Wallace, Enosburg Falls.
Northeast district..... Richford, Berkshire, Montgomery.	Edwin F. Greene, Richford.
Southeast district..... Bakersfield, Fairfield, Fletcher.	Sidney C. Harding, East Fairfield.
Grand Isle County:	
Grand Isle district.... Alburg, Isla La Motte, North Hero, South Hero, Grand Isle.	Fred E. Cargill, Alburg.
Lamoille:	
East district..... Hyde Park, Eden, Wolcott.	Harold P. Crosby, Hyde Park.
South district..... Morristown, Stowe, Elmore.	Carlton D. Howe, Morrisville.
West district..... Cambridge, Johnson, Waterville, Belvidere.	L. E. Bell, Johnson.
Orange County:	
East district..... Bradford, Fairlee, Vershire, Corinth, Cookville, I., Topsham.	Edward L. Clark, Bradford.
Northwest district.... Chelsea, Williamstown, Washington, Orange.	W. F. Glover, Williamstown.
Southwest district.... Randolph I., Randolph T., Brookfield, Braintree.	George W. Patterson, Randolph.
Southeast district..... Thetford, West Fairlee, Strafford, Norwich, Sharon.	Charles P. McKnight, South Strafford.
Orleans County:	
North district..... Newport I., Newport T., Newport Ctr. I., Coventry, Irasburg.	Ernest A. Hamilton, Newport.
East district..... Charleston, Holland, Morgan, Brownington, Westmore.	Edwin S. Boyd, West Charleston.
Central district..... Barton I., Orleans I., Barton T., Glover, Albany.	Clayton L. Erwin, Barton.
South district..... Hardwick I., Hardwick T., Stannard, Craftsbury, Greensboro.	Clarence L. Cowles, Craftsbury.
West district..... North Troy, Troy, Jay, Westfield, Lowell.	B. A. Colby, North Troy.
Rutland County:	
North district..... Brandon I., Brandon T., Hubbardton, Sudbury, Whiting, Leicester, Goshen.	M. A. Sturtevant, Brandon.

[1] For other superintendents of Vermont see p. 89.

XII.—County and Other Local Superintendents of Schools—Continued.

Supervision district.	District superintendent.
VERMONT—continued.	
Rutland County—Con.	
Northeast district..... Proctor, Chittenden, Pittsford, Rutland T.	William A. Beebe, Proctor.
Central district..... Castleton, West Rutland, Ira, Fair Haven T., West Haven.	Philip R. Leavenworth, Castleton.
West district..... Poultney, Fair Haven I., Wells, Middletown Springs.	Willis H. Hosmer, Fair Haven.
Southwest district.... Wallingford, Mendon, Clarendon, Tinmouth, Danby, Mt. Tabor.	E. L. Eddy, Wallingford.
Washington County:	
Northeast district..... Cabot, Calais, Woodbury, Marshfield.	Joseph W. Butterfield, North Montpelier.
Central district..... East Montpelier, Plainfield, Worcester, Middlesex, Moretown.	Walter B. Lance, Plainfield.
South district..... Northfield I., Northfield T., Roxbury, Berlin.	J. Allen Hunter, Northfield
West district..... Waterbury, Duxbury, Fayston, Warren, Waitsfield.	M. W. Chaffee, Waterbury.
Barre Town district.. Barre Town.	George J. Seager, South Barre.
Windham County:	
Northwest district.... Londonderry, Weston, Winhall, Peru, Landgrove, Jamaica, Windham.	A. D. Wiggin, South Londonderry.
VERMONT—continued.	
Windham County—Con.	
Central district..... Newfane, Townshend, Dover, Wardsboro, Grafton, Athens, Brookline, Stratton.	George B. Whitney, Townshend.
East district..... Brattleboro T., Dummerston, Putney, Westminster.	Ethel A. Eddy, West Brattleboro.
Southeast district..... Halifax, Guilford, Vernon, Marlboro.	Harold E. Moffitt, West Brattleboro.
Southwest district.... Wilmington, Whitingham, Readsboro, Stamford, Somerset, Searsburg.	Frank E. Sawyer, Readsboro.
Windsor County:	
North district..... Bethel I., Bethel T., Royalton, Tunbridge.	V. K. Brackett South Royalton.
Central district..... Woodstock, Bridgewater, Barnard, Pomfret.	Everett V. Perkins, Woodstock.
East district..... Windsor, Hartland, West Windsor, Reading.	George L. Spaulding, Windsor.
South district..... Chester, Weathersfield, Cavendish, Duttonsville I., Baltimore, Andover.	Percy H. Blake, Chester.
West district..... Ludlow, Plymouth, Mt. Holly, Shrewsbury.	L. M. Darling, Ludlow.
Northwest district.... Rochester I., Rochester T., Hancock, Granville, Pittsfield, Sherburne, Stockbridge.	Samuel H. Erskine, Rochester.

Division.[1]	Division superintendent.
VIRGINIA.	
Accomac	G. G. Joynes, Onancock.
Albemarle	H. M. McManaway, Charlottesville.
Alexandria	Fletcher Kemp, Rosslyn.
Alleghany	J. G. Jeter, Covington.
Amelia	W. R. Wrigglesworth, Blackstone.
Amherst	C. L. Scott, Amherst.
Appomattox	N. R. Featherston, Vera.
Augusta	F. M. Somerville, Staunton, R. F. D. 6.
Bath	J. E. Dobbins, Millboro.
Bedford	C. M. Abbot, Bellevue.
Bland	Frank L. Dunn, Bland.
Botetourt	E. A. Painter, Fincastle.
Brunswick	R. Lee Chambliss, Rawlings.
Buchanan	M. L. Combs, Grundy.
Buckingham	John A. Twyman, Wingina, R. F. D.
Campbell	W. L. Garbee, Lawyers.
Caroline	John Washington, Milford.
Carroll	J. Lee Cox, Woodlawn.
Charles City	A. C. Cooper, Toano.
VIRGINIA—contd.	
Charlotte	E. H. Hall, Drakes Branch.
Chesterfield	Philip M. Tyler, Chester.
Clarke	L. D. Cline, Stephens City.
Craig	J. G. Jeter, Covington.
Culpeper	T. W. Hendricks, Culpeper.
Cumberland	C. W. Dickinson, jr., Cartersville.
Dickenson	M. W. Remines, Clintwood.
Dinwiddie	G. B. Zehmer, McKenney.
Elizabeth City	John M. Willis, Hampton.
Essex	W. G. Rennolds, Center Cross.
Fairfax	M. D. Hall, Burke.
Fauquier	E. Albert Smith, Warrenton
Floyd	Isaac L. Epperly, Floyd.
Fluvanna	T. H. Shepherd, Wilmington.
Franklin	W. D. Rucker, Rocky Mount.
Frederick	L. D. Cline, Stephens City.
Giles	R. H. Farrier, Newport.
Gloucester	R. A. Folkes, Gloucester.
Goochland	C. W. Dickinson, jr., Cartersville.
Grayson	G. F. Carr, Galax.
Greene	J. N. Miller, Haywood.

[1] Eighty divisions are coterminous with single counties and ten divisions comprise two counties each.

XII.—County and Other Local Superintendents of Schools—Continued.

Division.	Division superintendent.
VIRGINIA—contd.	
Greenesville	Henry Maclin, North Emporia.
Halifax	H. J. Watkins, South Boston.
Hanover	J. Walton Hall, Ashland.
Henrico	William L. Prince, Richmond, Henrico Court House.
Henry	W. B. Gates, Martinsville.
Highland	R. E. Mauzy, Hightown.
Isle of Wight	Gavin Rawls, Carrsville.
James City	A. C. Cooper, Toano.
King and Queen	W. G. Rennolds, Center Cross.
King George	James Ashby, Falmouth.
King William	H. Ragland Eubank, Etna Mills.
Lancaster	Frank W. Lewis, Morattico.
Lee	W. A. Wygal, Jonesville.
Loudoun	O. L. Emerick, Purcellville.
Louisa	Frank T. West, Louisa.
Lunenburg	I. T. Wilkinson, Kenbridge.
Madison	J. N. Miller, Haywood.
Mathews	G. G. Anderton, Saluda.
Mecklenburg	F. C. Bedinger, Boydton.
Middlesex	G. G. Anderton, Saluda.
Montgomery	J. B. Lucas, Blacksburg.
Nansemond	P. S. Blandford, Driver.
Nelson	B. M. Wailes, Schuyler.
New Kent	A. C. Cooper, Toano.
Norfolk	James Hurst, Norfolk.
Northampton	E. G. Tankard, Nassawadox.
Northumberland	F. W. Lewis, Morattico.
Nottoway	W. R. Wrigglesworth, Blackstone.
Orange	C. P. Cowherd, Gordonsville.
Page	John H. Booton, Luray.
Patrick	J. Fay Reynolds, Stuart.
Pittsylvania	O. P. Ramsey, Chatham.
Powhatan	J. W. Reynolds, Powhatan.
Prince Edward	P. T. Atkinson, Hampden-Sidney.
Prince George	A. B. Bristow, Hopewell.
Princess Anne	O. B. Mears, Norfolk, R. F. D. 2.
Prince William	Chas. R. McDonald, Gainesville.
Pulaski	E. L. Darst, Dublin.
Rappahannock	H. D. Hite, Front Royal.
Richmond	Blake T. Newton, Hague.
Roanoke	R. E. Cook, Salem.
Rockbridge	E. K. Paxton, Lexington.
Rockingham	J. C. Myers, Harrisonburg.
Russell	H. W. Fugate, Lebanon.
Scott	W. D. Smith, Gate City.
Shenandoah	C. V. Shoemaker, Woodstock.
Smyth	B. E. Copenhaver, Marion.
Southampton	G. L. H. Johnson, Franklin.
Spotsylvania	J. H. Chiles, Fredericksburg.
Stafford	James Ashby, Falmouth.
Surry	L. N. Savedge, Alliance.
Sussex	A. B. Bristow, Hopewell.
Tazewell	A. S. Greever, Tazewell.
Warren	H. D. Hite, Front Royal.
Warwick	A. J. Renforth, Grafton.
Washington	W. J. Edmondson, Lodi.
Westmoreland	Blake T. Newton, Hague.
Wise	J. J. Kelly, jr., Wise.
Wythe	J. A. C. Hurt, Wytheville.
York	A. J. Renforth, Grafton.

County.	County superintendent.
WASHINGTON.	
Adams	Elizabeth M. Meyer, Ritzville.
Asotin	C. B. Thornton, Asotin.
Benton	Mrs. Lowa M. Crawford, Prosser.
Chelan	E. C. Bowersox, Wenatchee.
Clallam	Robt. A. Gilmore, Port Angeles.
Clarke	W. E. Dudley, Vancouver.
Columbia	W. W. Henlron, Dayton.
Cowlitz	Lucia Jenkins, Kalama.
Douglas	J. K. Thornton, Waterville.
Ferry	E. D. Houglan l, Republic.
Franklin	E. M. Dorsey, Pasco.
Garfield	Belva L. Ball, Pomeroy.
Grant	R. L. Blackburn, Ephrata.
Grays Harbor	T. W. Bibb, Montesano.
Island	Mrs. Evelyn Spencer, Coupeville.
Jefferson	Elva S. Edwards, Port Townsend.
King	A. S. Burrows, Seattle.
Kitsap	H. W. Elliott, Port Orchard.
Kittitas	S. A. Bartlett, Ellensburg.
Klickitat	Mabel H. Hinshaw, Goldendale.
Lewis	A. C. Canterbury, Chehalis.
Lincoln	J. R. Ward, Davenport.
Mason	Mrs. Mary M. Knight, Shelton.
Okanogan	Georgian Donald, Okanogan.
Pacific	Edith Soper, South Bend.
Pend Oreille	Mrs. Mamie Johnson, Newport.
Pierce	H. R. Cox, Tacoma.
San Juan	Carrie M. Busby, Friday Harbor.
Skagit	Mabel Graham, Mount Vernon.
Skamania	W. G. Detwiler, Stevenson.
Snohomish	W. F. Martin, Everett.
Spokane	Jean S. Donaldson, Spokane.
Stevens	Elizabeth Stannard, Colville.
Thurston	O. C. Goss, Olympia.
Wahkiakum	Mrs. Maud K. Butler, Cathlamet.
Walla Walla	Mary Gilliam, Walla Walla.
Whatcom	Ethel Everett, Bellingham.
Whitman	S. F. Shinkle, Colfax.
Yakima	Mrs. Anna R. Nichols, North Yakima.
WEST VIRGINIA.	
Barbour	E. A. Hunt, Bellington.
Berkeley	Chas. W. Crowell, Hedgesville.
Boone	W. W. Nelson, Turtle Creek.
Braxton	J. H. Hutchison, Sutton.
Brooke	T. A. Burton, Wellsburg.
Cabell	Edward Mays, Huntington.
Calhoun	A. E. Weaver, Grantsville.
Clay	Roscoe Mullins, Clay.
Doddridge	L. L. Sadler, West Union.
Fayette	J. W. Cavendish, Fayetteville.
Gilmer	J. E. Hays, Glenville.
Grant	H. F. Groves, Petersburg.
Greenbrier	W. F. Richardson, Lewisburg.
Hampshire	Arthur Slonaker, Dillons Run.
Hancock	H. O. Miller, New Cumberland.
Hardy	E. A. Hawse, Baker.
Harrison	Carl S. Lawson, Clarksburg.
Jackson	P. H. Rardin, Ripley.
Jefferson	James Grantham, Kearneysville, R. No. 1.
Kanawha	Geo. W. Jenkins, jr., Charleston.
Lewis	Ellis L. Smith, Weston.

XII.—County and Other Local Superintendents of Schools—Continued.

County.	County superintendent.
WEST VIRGINIA—con.	
Lincoln	Fisher B. Adkins, Hamlin.
Logan	E. F. Skaggs, Logan.
Marion	W. E. Michael, Fairmont.
Marshall	H. W. McDowell, Moundsville.
Mason	M. E. Roach, Point Pleasant.
Mercer	E. B. King, Princeton.
Mineral	Luke McDowell, Keyser.
Mingo	Chas. H. Ellis, Williamson.
Monongalia	Lynn Hastings, Morgantown.
Monroe	W. W. Baker, Union.
Morgan	G. F. Fearnow, Berkeley Springs.
McDowell	W. C. Cook, Welch.
Nicholas	L. O. Bobbitt, Summersville
Ohio	J. H. Lazear, Wheeling, Fulton.
Pendleton	Jesse H. Cook, Circleville.
Pleasants	G. C. MacTaggart, Eureka.
Pocahontas	B. B. Williams, Marlinton.
Preston	Willis Fortney, Kingwood.
Putnam	Henry C. Hill, Winfield.
Raleigh	W. S. Rogers, Beckley.
Randolph	Troy B. Wilmoth, Elkins.
Ritchie	Austin Dotson, Harrisville.
Roane	I. B. Boggs, Spencer.
Summers	Lee Harper, Hinton.
Taylor	Roy J. Martin, Grafton.
Tucker	C. R. Parsons, Parsons.
Tyler	J. T. Fonner, Middlebourne.
Upshur	B. H. Carpenter, Buckhannon.
Wayne	O. J. Rife, Wayne.
Webster	Sampson N. Miller, Webster Springs.
Wetzel	D. L. Haught, New Martinsville.
Wirt	Ross Wilson, Elizabeth.
Wood	H. A. Langfitt, Parkersburg.
Wyoming	J. H. Cooper, Winlom.
WISCONSIN.	
Adams	Hannah Poppe, Friendship.
Ashland	W. P. Hagman, Mellen.
Barron	Gertrude Wahl, Barron.
Bayfield	Jessie N. Smith, Washburn.
Brown	L. J. Martell, Green Bay.
Buffalo	H. J. Niehaus, Alma.
Burnett	O. H. Caspers, Grantsburg.
Calumet	Florence Billings, Chilton.
Chippewa	Bertha Trudelle, Chippewa Falls.
Clark	Elizabeth Kennedy, Neillsville.
Columbia	Mary B. Clark, Portage.
Crawford	George Burton, Eastman.
Dane:	
First dist	Sylvanus Ames, Stoughton.
Second dist	Thos. S. Thompson, Mount Horeb.
Dodge	John Kelley, Juneau.
Door	Catherine Conley, Sturgeon Bay.
Douglas	Marie Campeau, Superior.
Dunn	Theresa Leinenkugal, Menomonie.
Eau Claire	Lillia E. Johnson, Eau Claire.
Florence	Mrs. G. W. Kinnear, Florence
Fond du Lac	Morvan Duel, Fond du Lac.
Forest	Linda Schmidt, Crandon.
Grant	T. Emery Bray, Lancaster.
Green	John N. Burns, Monroe.
Green Lake	George V. Kelley, Princeton.
Iowa	Jesse A. Van Natta, Dodgeville.
Iron	Della C. Emunson, Hurley.
Jackson	Mae E. Hardie, Taylor.
Jefferson	A. J. Thorne, Jefferson.
Juneau	Leah H. Diehl, Mauston.
Kenosha	R. L. Cundy, Silver Lake.
Kewaunee	

County.	County superintendent.
WISCONSIN—con.	
La Crosse	Anna M. Jenkins, Bangor.
La Fayette	W. W. Woolworth, Darlington.
Langlade	A. M. Arveson, Antigo.
Lincoln	W. S. Freeman, Merrill.
Manitowoc	Joseph Voboril, Manitowoc.
Marathon	J. E. Giessel, Wausau.
Marinette	Gertrude Schwittay, Marinette.
Marquette	James Madison, Endeavor.
Milwaukee	E. T. Griffin, Milwaukee.
Monroe	M. M. Haney, Sparta.
Oconto	Ellen B. McDonald, Oconto.
Oneida	F. A. Lowell, Rhinelander.
Outgamie	A. G. Meating, Appleton.
Ozaukee	Richard F. Beger, Fredonia.
Pepin	Cynthia Carlisle, Durand.
Pierce	H. B. Aasterud, Ellsworth.
Polk	Gail Chadwick, Balsam Lake.
Portage	Marion E. Bannach, Stevens Point.
Price	Ida Johnson, Phillips.
Racine	Isabel Swantz, Union Grove.
Richland	Jacob B. Logue, Richland Center.
Rock	O. D. Antisdel, Janesville.
Rusk	Oliver E. Rice, Ladysmith.
St. Croix	H. A. Aune, Baldwin.
Sauk	Geo. W. Davies, North Freedom.
Sawyer	Mrs. Josephine Grafton, Hayward.
Shawano	L. D. Roberts, Shawano.
Sheboygan	H. C. Dornbush, Plymouth.
Taylor	J. E. Phillips, Medford.
Trempealeau	Helen M. Berg, Whitehall.
Vernon	Maud E. Neprud, Viroqua.
Vilas	Arthur J. Austin, Eagle River.
Walworth	Helen Martin, Elkhorn.
Washburn	Lucy A. Leonard, Shell Lake.
Washington	Alva Groth, West Bend.
Waukesha	G. B. Rhoads, Waukesha.
Waupaca	R. C. Bigford, Manawa.
Waushara	Edward Coates, Wautoma.
Winnebago	Reginald E. Sanders, Oshkosh.
Wood	Geo. A. Varney, Vesper.
WYOMING.	
Albany	Mrs. N. Artisee Erickson, Laramie.
Big Horn	Mrs. Elaine Kinder, Basin.
Campbell	Anna B. Schmidt, Gillette.
Carbon	Frances B. Smith, Rawlins.
Converse	Maud Dawes, Douglas.
Crook	G. Edna McWethy, Sundance.
Fremont	Verna E. Wells, Lander.
Goshen	C. O. Downing, Torrington.
Hot Springs	Mrs. Nellie L. Wales, Thermopolis.
Johnson	Mrs. Bessie M. Bullis, Buffalo.
Laramie	Mrs. Mamie E. Hefferon, Cheyenne.
Lincoln	Mrs. Maggie F. Nicholson, Kemmerer.
Natrona	May Hamilton, Casper.
Niobrara	Amy E. Christian, Lusk.
Park	Nellie L. Underwood, Cody.
Platte	Mrs. Winifred W. Banner, Wheatland.
Sheridan	Mrs. Blanche A. Rice, Sheridan.
Sweetwater	Mrs. Miriam W. Shedden, Rocksprings.
Uinta	Mrs. Jennie M. Isherwood, Evanston.
Washakie	Mrs. W. G. Wild, Worland.
Weston	Mabel G. Kingsley, Newcastle.

XIII.—Superintendents of Public Schools in Cities and Towns.[1]

City.	Population, census of 1910.	Superintendent or supervising principal.
ALABAMA.		
Alabama City	4,313	J. T. Roberts.
Albany	6,118	Mrs. Kimball B. Jones.
Anniston	12,794	D. R. Murphey.
Attalla	2,513	Alice Coleman.
Bessemer	10,864	L. L. Vann.
Birmingham	132,685	J. H. Phillips.
Decatur	4,228	J. Floyd Collins.
Dothan	7,016	P. W. Hodges.
Eufaula	4,259	H. L. Upshaw.
Florence	6,689	F. T. Appleby.
Gadsden	10,557	W. C. Griggs.
Girard	4,214	Welmer C. Hughes.
Greenville	3,377	C. B. Gamble.
Huntsville	7,611	R. C. Johnston.
Jasper	2,509	
Lanett	3,820	W. S. Leatherwood.
Mobile	51,521	S. S. Murphy.
Montgomery	38,136	W. R. Harrison.
Opelika	4,734	S. O. White.
Phoenix	4,555	J. C. McAuley.
Selma	13,649	Arthur F. Harman.
Sheffield	4,865	L. E. Creel.
Talladega	5,854	D. A. McNeil.
Troy	4,961	John R. McLure.
Tuscaloosa	8,407	James H. Foster.
Tuscumbia	3,324	R. E. Thompson.
Tuskegee	2,803	Mr. Hollnesworth.
Union Springs	4,055	E. S. Pugh.
ALASKA.		
Anchorage	3,480	T. R. McAnally.
Douglas		Floy Tracy.
Fairbanks	3,541	
Juneau	5,000	F. F. Sparks.
Ketchikan		W. A. Knox.
Nome	2,000	O. W. Baird.
Valdez	2,500	F. G. Davis.
ARIZONA.		
Bisbee	9,019	C. F. Philbrook.
Clifton	4,874	W. D. Baker.
Douglas	6,437	Harold Steele.
Globe	7,083	Walter P. Bland.
Morenci	5,010	W. E. Lutz.
Nogales	3,514	G. H. Madden.
Phoenix	11,134	John D. Loper.
Prescott	5,092	S. H. Martin.
Tucson	13,193	Fred A. Nims.
Yuma	2,914	C. W. McGraw.
ARKANSAS.		
Arkadelphia	2,745	W. J. Breit.
Batesville	3,399	Sidney Pickens.
Blytheville	3,849	Harvey Haley.
Camden	3,995	T. C. Abbott.
Conway	2,794	R. E. Womack.
Eldorado	4,202	Donald Macqueen.
Eureka Springs	3,228	C. S. Barnett.
Fayetteville	4,471	F. S. Root.
Fordyce	2,794	G. R. Turrentine.
Fort Smith	23,975	Lee Byrne.
Helena	8,772	E. B. Tucker.
Hope	3,639	D. L. Paisley.
Hot Springs	14,434	O. L. Dunaway.
Jonesboro	7,123	J. P. Womack.
Little Rock	45,941	R. C. Hall.
Malvern	2,778	J. L. Pratt.
Marianna	4,810	Fred L. MacChesney.
Mena	3,953	Mrs. T. A. Parke.
Newport	3,557	Edgar Williams.
ARKANSAS—contd.		
North Little Rock	11,138	
Paragould	5,248	James W. Ramsey.
Pine Bluff	15,102	Junius Jordan.
Prescott	2,705	C. M. Hirst.
Rogers	2,820	M. O. Alcorn.
Russellville	2,936	W. F. Hall.
Stuttgart	2,740	John G. Rossman.
Texarkana	5,655	Ury McKenzie.
Van Buren	3,878	D. M. Riggin.
CALIFORNIA.		
Alameda	23,383	C. J. Du Four.
Alhambra	5,021	Charles E. Barber.
Anaheim	2,628	J. L. Van Derveer.
Bakersfield	12,727	H. M. Shafer.
Berkeley	40,434	H. B. Wilson.
Chico	3,750	C. H. Camper.
Coalinga	4,199	C. L. Geer.
Colton	3,980	G. H. Jantzen.
Corona	3,540	Irving O. Bragg.
Emeryville	2,613	D. B. Lacy.
Eureka	11,845	George B. Albee.
Fresno	24,892	Jerome O. Cross.
Glendale	2,746	R. D. White.
Grass Valley	4,520	James S. Hennessy
Hanford	4,829	J. E. Meadows.
Hayward	2,746	Eugene M. Knight.
Lodi	2,697	R. J. Custer.
Long Beach	17,809	W. L. Stephens.
Los Angeles	319,198	Albert Shiels.
Marysville	5,430	Jennie Malaley.
Merced	3,102	C. S. Clark.
Mill Valley	2,551	G. G. Hurt.
Modesto	4,034	W. E. Faught.
Monrovia	3,576	A. R. Clifton.
Monterey	4,923	J. H. Graves.
Napa	5,791	J. L. Shearer.
Nevada City	2,689	F. E. Tuck.
Oakland	150,174	Fred M. Hunter.
Ontario	4,274	J. W. Groves.
Orange	2,920	Charles E. Teach.
Oroville	3,859	H. P. Short.
Oxnard	2,555	R. B. Haydock.
Palo Alto	4,486	Walter H. Nichols.
Pasadena	30,291	J. M. Rhodes.
Petaluma	5,880	E. B. Dykes.
Pomona	10,207	G. Vernon Bennett.
Porterville	2,696	W. A. Ferguson.
Red Bluff	3,530	J. D. Sweeney.
Redding	3,572	Mrs. C. Cunningham.
Redlands	10,449	H. G. Clement.
Redondo Beach	2,935	C. A. Langworthy.
Richmond	6,802	Walter T. Helms.
Riverside	15,212	A. N. Wheelock.
Roseville	2,608	H. A. Burch.
Sacramento	44,696	Chas. C. Hughes.
Salinas	3,736	Philip Power.
San Bernardino	12,779	R. B. Stover.
San Diego	39,578	Guy V. Whaley.
San Francisco	416,912	Alfred Roncovieri.
San Jose	28,946	Alexander Sherriffs.
San Leandro	3,471	Guy Smith.
San Luis Obispo	5,157	Arthur H. Mabley.
San Mateo	4,384	Geo. W. Hall.
San Rafael	5,934	Roger S. Phelps.
Santa Ana	8,429	J. A. Cranston.
Santa Barbara	11,659	A. C. Olney.
Santa Clara	4,348	W. J. Haywood.
Santa Cruz	11,146	J. W. Linscott.
Santa Monica	7,847	H. M. Rebok.
Santa Rosa	7,817	T. F. Brownscombe.
South Pasadena	4,649	George C. Bush.
Stockton	23,253	Ansel S. Willians.

[1] Superintendents, supervising principals, or principals, as the case may be, for cities, towns, and incorporated villages reported as of 2,500 population or over and classed as urban in the census of 1910.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
CALIFORNIA—con.		
Tulare	2,758	Will L. Frew.
Vallejo	11,340	A. C. Barker.
Ventura	2,945	Arthur L. Vincent.
Visalia	4,550	John E. Cuddeback.
Watsonville	4,446	T. S. MacQuiddy.
Whittier	4,550	U. G. Durfee.
Woodland	3,187	C. E. Dingle.
COLORADO.		
Alamosa	3,013	G. W. Allen.
Boulder	9,539	Wm. V. Casey.
Canon City	5,162	Milo L. Whittaker.
Colorado City	4,333	E. C. Best.
Colorado Springs	29,078	Roscoe C. Hill.
Cripple Creek	6,206	Wilson M. Shafer.
Denver	213,381	Carlos M. Cole.
Durango (District No. 9)	4,686	Emery E. Smiley.
Englewood	2,983	Chas. H. Hay.
Florence	2,712	N. R. Young.
Fort Collins	8,210	Albert H. Dunn.
Fort Morgan	2,800	W. A. Franks.
Grand Junction	7,754	R. E. Tope.
Greeley	8,179	G. E. Brown.
La Junta	4,154	R. M. Tirey.
Lamar	2,977	J. E. Hershberger.
Leadville	7,508	Joseph H. Walton.
Longmont	4,256	Charles C. Casey.
Loveland	3,651	R. W. Truscott.
Monte Vista	2,544	George R. Momyer.
Montrose	3,254	William Melcher.
Pueblo: District No. 1.	44,395	J. W. McClinton.
Pueblo: District No. 20		J. F. Keating.
Rocky Ford	3,230	R. J. Walters.
Salida	4,425	Edgar Kesner.
Sterling	3,044	J. A. Sexson.
Trinidad	10,204	H. M. Corning.
Victor	3,162	(See Cripple Creek.)
CONNECTICUT.[1]		
Ansonia	15,152	Richard T. Tobin.
Berlin	3,728	B. R. Showalter.
Bethel	3,792	Frank A. Morris.
Branford	6,047	Arthur L. Young.
Bridgeport	102,054	S. J. Slawson.
Bristol	13,502	Karl A. Reiche.
Canton	2,732	W. H. Mandrey.
Danbury	23,502	G. I. Borst.
Darien	3,946	James F. Williams.
Derby	8,991	John Lund.
East Hartford	8,138	Edward H. Gumbart.
East Windsor	3,362	Vinal H. Tibbetts.
Enfield	9,719	G. C. Bowman.
Essex	2,745	C. H. Westbrook.
Fairfield	6,134	William E. Smith.
Farmington	3,478	L. S. Mills.
Glastonbury	4,796	Francis S. Knox.
Greenwich	16,463	Edwin C. Andrews.
Griswold	4,233	Frank H. P. Clement.
Groton (P. O. Mystic)	6,495	C. R. Heath.[2]
Guilford	3,001	Charles E. Hicks.
Hamden	5,850	Margaret L. Keefe.
Hartford	98,915	Thomas S. Weaver.
Huntington	6,545	(See Shelton.)
Killingly (P. O. Danielson.)	6,564	Horace F. Turner.
Litchfield	3,005	Earl A. Childs.

City.	Population, census of 1910.	Superintendent or supervising principal.
CONNECTICUT—con.		
Manchester: Town schools. District No. 9.	13,641	Alfred F. Howes. F. A. Verplanck.
Meriden	32,066	David Gibbs.
Middletown	20,749	Edward B. Sellew.
Milford	4,366	H. I. Mathewson.
Montville	2,804	Eldridge Smith.
Naugatuck	12,722	Frank W. Eaton.
New Britain	43,916	Stanley H. Holmes.
New Canaan	3,667	Henry W. Saxe.
New Haven	133,605	Frank H. Beede.
New Haven (Westville district)		W. F. H. Breeze.
New London	19,659	Charles B Jennings.
New Milford	5,010	John Pettibone.
Newtown	3,012	Leo T. Hickson.
Norwalk	24,211	G. V. Buchanan.
Norwich	28,219	Edward J. Graham.
Orange (P. O. West Haven)	11,272	Edgar C. Stiles.
Plainfield	6,719	J. L. Chapman.
Plainville	2,882	Orrin Judd.
Plymouth (P. O. Terryville)	5,021	A. S. Gaylord.
Portland	3,425	James F. Connolly.
Putnam	7,280	Wm. L. MacDonald.
Ridgefield	3,118	Charlotte J. Wakeman.
Salisbury	3,522	W. M. Teague.
Seymour	4,786	R. C. Clark.
Shelton	6,545	Harry E. Fowler.
Simsbury	2,537	J. B. McLean.
Southington	6,516	Ernest C. Witham.
Sprague	2,551	—— Dillingham.
Stafford	5,233	Anson B. Handy.
Stamford	28,836	Frederick S. Camp.
Stonington	9,154	Wm. R. Snyder.
Stratford	5,712	C. C. Thompson.
Suffield	3,841	H. B. Chapman.
Thomaston	3,533	Ernest W. Small.
Thompson	4,804	F. E. Harrington.
Torrington	16,840	George J. Vogel.
Vernon (P. O. Rockville)	9,087	H. O. Clough.
Wallingford	11,155	John W. Kratzer.
Waterbury	73,141	Berlin W. Tinker.
Waterford	3,097	Eldridge Smith.
Watertown	3,850	L. K. Chance.
West Hartford	4,808	William H. Hall.
Westport	4,259	John A. Young.
Wethersfield	3,148	J. Allen Hunter.
Winchester (P. O. Winsted)	8,679	Frank E. Fisk.
Windham (P. O. Willimantic)	12,604	Egbert A. Case.
Windsor	4,178	Daniel Howard.
Windsor Locks	3,715	Leander Jackson.
DELAWARE.		
Dover	3,720	C. W. W. Schantz.
Milford	2,603	Gilbert Nickel.
New Castle	3,351	Reeda M. Stoops.
Wilmington	87,411	C. J. Scott.
DISTRICT OF COLUMBIA.		
Washington	331,069	Ernest L. Thurston.
FLORIDA.[3]		
Apalachicola	3,065	A. A. Core.
Bartow	2,662	John A. Moore.

[1] For other Connecticut superintendents, see p. 45.
[2] Secretary board of school visitors.
[3] The county superintendents of Florida supervise the city schools in their respective counties.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
FLORIDA—contd.		
Daytona	3,082	C. R. M. Sheppard, De Land.
De Land	2,812	
Fernandina	3,482	L. L. Owens.
Gainesville	6,183	E. R. Simmons.
Jacksonville	57,699	F. A. Hathaway.
Key West	19,945	V. S. Love.
Lake City	5,032	James R. Lites.
Lakeland	3,719	John A. Moore, Bartow.
Live Oak	3,450	J. W. O'Hara.
Miami	5,471	R. E. Hall.
Ocala	4,370	J. H. Brinson.
Orlando	3,894	A. B. Johnson.
Palatka	3,779	C. H. Prince.
Pensacola	22,982	A. S. Edwards.
Quincy	3,204	C. H. Gray.
St. Augustine	5,494	D. D. Corbett.
St. Petersburg	4,127	D. M. Hollins.
Sanford	3,570	T. W. Lawton.
Tallahasse	5,018	F. S. Hartsfield.
Tampa	37,782	J. E. Knight.
GEORGIA.		
Albany	8,190	R. E. Brooks.
Americus	8,063	J. E. Mathis.
Athens	14,913	Glenn G. Bond.
Atlanta	154,839	C. S. Culver, acting.
Augusta	41,040	Lawton B. Evans.
Bainbridge	4,217	E. G. Elcan.
Barnesville	3,068	E. T. Holmes.
Brunswick	10,182	N. H. Ballard.
Carrollton	3,297	H. B. Adams.
Cartersville	4,067	H. L. Sewell.
Cedartown	3,551	J. E. Purks.
Columbus	20,554	R. B. Daniel.
Cordele	5,883	H. B. Nicholson.
Covington	2,697	H. B. Robertson.
Cuthbert	3,210	H. C. Weir.
Dalton	5,324	J. H. Watson.
Dawson	3,827	J. C. Dukes.
Douglas	3,550	W. A. Little.
Dublin	5,759	Paul J. King.
East Point	3,682	J. R. Campbell.
Elberton	6,483	W. A. Anderson.
Fitzgerald	5,795	J. E. Ricketson.
Fort Valley	2,697	Ralph O. Newton.
Gainesville	5,925	J. A. Mershon.
Griffin	7,478	J. A. Jones.
Hawkinsville	3,420	J. F. Lambert.
La Grange	5,587	F. F. Rowe.
Macon	40,665	C. H. Bruce.
Marietta	5,949	W. T. Dumas.
Milledgeville	4,385	J. H. Marshburn.
Monroe	3,029	Charles F. Fawcett.
Moultrie	3,349	J. Harold Saxon.
Newnan	5,548	B. F. Pickett.
Quitman	3,915	H. D. Knowles.
Rome	12,099	Walter P. Jones.
Sandersville	2,641	C. B. Quillian.
Savannah	65,064	Carleton B. Gibson.
Statesboro	2,529	R. M. Monts.
Summerville	4,361	C. L. Kemper.
Thomasville	6,727	B. B. Broughton.
Toccoa	3,120	J. I. Allman.
Valdosta	7,656	W. O. Roberts.
Washington	3,065	J. W. Mosley.
Waycross	14,485	A. G. Miller.
Waynesboro	2,729	Jack Lance.
IDAHO.		
Boise	17,358	C. E. Rose.
Caldwell	3,543	H. H. Clifford.
Coeur d'Alene	7,291	J. V. Buck.
Idaho Falls	4,827	Theo. B. Shank.
IDAHO—contd.		
Lewiston	6,043	Frank W. Simmonds.
Moscow	3,670	J. H. Rich.
Nampa	4,205	C. J. Brosman.
Pocatello	9,110	Walter R. Siders.
Sandpoint	2,993	A. Tyndall Park.
Twin Falls	5,258	Harold G. Blue.
Wallace	3,000	C. D. Brock.
Weiser	2,600	D. C. Neifert.
ILLINOIS.		
Alton	17,528	W. C. Reavis.
Anna	2,809	Chas. A. Harper.
Aurora: East Side, West Side	29,807	C. M. Bardwell, S. K. McDowell.
Averyville (P. O. Peoria)	2,668	Harry E. Iler.
Batavia	4,436	H. C. Storm.
Beardstown	6,107	H. G. Russell.
Belleville	21,122	O. F. Weber.
Belvidere	7,253	J. W. Browning.
Benton	2,675	Ralph W. Jackson.
Berwyn	5,841	Eugene A. Wilson.
Bloomington	25,768	J. K. Stableton.
Blue Island	8,043	J. E. Lemon.
Bridgeport	2,703	J. A. Egelhoff.
Bushnell	2,619	W. T. Everitt.
Cairo	14,548	Taylor C. Clendenen.
Canton	10,453	G. W. Gayler.
Carbondale	5,411	A. R. Boone.
Carlinville	3,616	H. J. Blue.
Carmi	2,833	Joseph Gersbacher.
Carterville	2,971	O. A. Towns.
Centralia	9,680	S. H. Bohn.
Champaign	12,421	W. W. Earnest.
Charleston	5,884	De Witt Elwood.
Chester	2,747	C. O. Todd.
Chicago	2,185,283	Peter A. Mortenson.
Chicago Heights	14,525	Floyd T. Goodier.
Cicero	14,557	W. W. Lewton.
Clinton	5,165	H. H. Edmunds.
Coal City	2,667	Barbara Vollmer.
Collinsville	7,478	C. H. Dorris.
Danville	27,871	Gilbert P. Randle.
Decatur	31,140	James O. Engleman.
De Kalb	8,102	F. R. Ritzman.
Dixon: North Side, South Side	7,216	H. H. Hagan, J. H. Light.
Downers Grove	2,601	George C. Butler.
Dundee	5,100	Osher Schlaifer.
Duquoin	5,454	R. B. Templeton.
East Moline	2,665	D. B. Hoffman.
East St. Louis	58,547	D. Walter Potts.
Edwardsville	5,014	C. F. Ford.
Effingham	3,898	Francis M. Ingler.
Eldorado	3,366	James Lyon.
Elgin	25,976	Robert I. White.
Evanston: District No. 75, District No. 76	24,978	F. W. Nichols.
Fairbury	2,505	E. W. Powers.
Forest Park	6,594	Henry Buellesfield.
Freeport	17,567	S. E. Raines.
Galena	4,835	Katherine H. Obye.
Galesburg	22,089	T. W. Callihan.
Geneseo	3,199	John C. Reeder.
Granite City	9,903	L. P. Frohardt.
Greenville	3,178	E. W. Martin.
Harrisburg	5,309	T. O. Elliott.
Harvard	3,008	Chas. O. Haskell.
Harvey	7,227	F. L. Miller.
Havana	3,525	T. E. Savage.
Herrin	6,861	Ray V. Jordan.
Highland	2,675	C. L. Dietz.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
ILLINOIS—contd.		
Highland Park:		
District No. 107.	4,209	Jesse L. Smith.
District No. 108.		Clark G. Wright.
Hillsboro	3,424	H. J. Beckemeyer.
Hoopeston	4,698	William R. Lowery.
Jacksonville	15,256	H. A. Perrin.
Jerseyville	4,113	D. R. Henry.
Johnston City	3,248	C. J. Ramsay.
Joliet	34,670	R. O. Stoops.
Kankakee	13,986	Franklin N. Tracy.
Kewanee	9,307	W. R. Curtis.
La Grange	5,282	A. S. Anderson.
Lake Forest	3,349	J. E. Baggett.
La Salle	11,537	J. B. McManus.
Lawrenceville	3,235	E. E. Grounds.
Lincoln	10,892	W. J. Hawkes.
Litchfield	5,971	D. H. Wells.
Lockport	2,555	R. L. Spires.
Macomb	5,774	J. I. Lynch.
Madison	5,046	Henry S. Stice.
Marion	7,093	B. F. Parr.
Marseilles	3,291	M. R. Grigsby.
Marshall	2,569	H. E. Slusser.
Mattoon	11,456	J. F. Wiley.
Maywood (District No. 89).	8,033	Eugene La Rowe.
Melrose Park	4,896	
Mendota	3,806	K. M. Snapp.
Metropolis	4,655	C. A. McGinnis.
Moline	24,199	Lewis A. Mahoney.
Monmouth	9,128	L. L. Caldwell.
Morris	4,563	E. D. Martin.
Mound City	2,837	Mary Roberson.
Mount Carmel	6,934	A. F. Lyle.
Mount Olive	3,501	Leonidus Harr.
Mount Vernon	8,007	William Miner.
Murphysboro	7,485	S. J. Shomaker.
Naperville	3,449	O. A. Waterman.
Normal	4,024	Chester F. Miller.
North Chicago	3,306	F. E. Deyoe.
Oak Park	19,444	William J. Hamilton.
Oglesby	3,194	N. M. Mason.
Olney	5,011	H. W. Hostettler.
Ottawa	9,535	C. J. Byrne.
Pana	6,055	J. Louis Hart.
Paris	7,664	T. J. Beecher.
Paxton	2,912	O. J. Bainum.
Pekin	9,897	Robert C. Smith.
Peoria	66,950	Alfred W. Beasley.
Peru	7,984	A. H. Karn.
Petersburg	2,587	J. B. Hendricks.
Pinckneyville	2,722	B. Q. Hoskinson.
Pontiac	6,090	G. J. Koons.
Princeton	4,131	H. E. Waits.
Quincy	36,587	Charles M. Gill.
Robinson	3,863	Harry E. Green.
Rochelle	2,732	H. A. Winmer.
Rock Falls	2,657	Chas. Holsinger.
Rockford	45,401	Carroll R. Reed.
Rock Island	24,335	E. C. Fisher.
St. Charles	4,046	B. F. Stalcup.
Salem	2,669	J. T. Dorris.
Sandwich	2,557	W. W. Woodbury.
Savanna	3,691	C. H. Le Vitt.
Shelbyville	3,590	William Harris.
Sparta	3,081	W. H. W. Wasson.
Springfield	51,678	I. M. Allen.
Spring Valley	7,035	Irving Munson.
Staunton	5,048	W. E. Eccles.
Sterling:		
District No. 8.	7,067	Miss A. L. Hill.
District No. 11		Clarence Selby.
Streator	14,253	H. B. Fisher.
Sullivan	2,621	T. H. Finley.
Sycamore	3,926	O. E. Peterson.
ILLINOIS—contd.		
Taylorville	5,446	Edgar S. Jones.—
Urbana	8,254	A. P. Johnson.
Vandalia	2,974	O. C. Bailey.
Venice	3,718	S. J. McComis.
Virden	4,000	Clyde Slone.
Waukegan	16,069	John S. Clark.
West Hammond	4,948	Otis W. Glamore.
Westville	2,607	Sherman Cass.
Wheaton	3,423	J. B. Russell.
Whitehall	2,854	Robert G. Smith.
Wilmette	4,943	J. R. Harper.
Winnetka	3,168	E. N. Rhodes.
Woodstock	4,331	R. W. Bardwell.
Zion City	4,789	Joseph L. Bishop.
INDIANA.		
Alexandria	5,096	F. W. Stoler.
Anderson	22,476	W. A. Denny.
Angola	2,610	Heyman B. Allman.
Attica	3,335	Wm. F. Mullinnix.
Auburn	3,919	G. W. Youngblood.
Aurora	4,410	J. R. Houston.
Bedford	8,716	E. W. Montgomery.
Bicknell	2,794	Wm. W. Carter.
Bloomington	8,838	E. E. Ramsey.
Bluffton	4,987	P. A. Allen.
Boonville	3,934	W. F. Vogel.
Brazil	9,340	Chas. P. Keller.
Clarksville (P. O. Jeffersonville).	2,743	Chas. P. Crone.
Clinton	6,229	Geo. W. McReynold.
Columbia City	3,448	C. E. Spaulding.
Columbus	8,813	Donald Du Shane.
Connersville	7,738	Edwin L. Rickert.
Crawfordsville	9,371	L. N. Hines.
Crown Point	2,526	J. M. Geiser.
Decatur	4,471	M. F. Worthmann.
Dunkirk	3,031	Harry L. Nixon.
East Chicago	19,098	Edwin N. Canine.
Elkhart	19,282	J. A. Wiggers.
Elwood	11,028	Arthur W. Konold.
Evansville	69,647	Louis P. Benezet.
Fairmount	2,506	R. B. Duff.
Fort Wayne	63,933	R. W. Himelick.
Frankfort	8,634	Lucian G. Hickman.
Franklin	4,502	J. C. Webb.
Garrett	4,149	Ray C. Pellett.
Gary	16,802	William A. Wirt.
Gas City	3,224	Norman J. Lasher.
Goshen	8,514	James Wilkinson.
Greencastle	3,790	Edwin C. Dodson.
Greenfield	4,448	Frank Larrabee.
Greensburg	5,420	E. C. Jerman.
Hammond	20,925	C. M. McDaniel.
Hartford City	6,187	A. L. Frantz.
Huntington	10,272	Jesse M. Seudder.
Indianapolis	233,650	Ellis U. Graff.
Jasonville	3,295	Jesse M. Todd.
Jeffersonville	10,412	Emmett Taylor.
Kendallville	4,981	P. C. Emmons.
Kokomo	17,010	C. V. Haworth.
La Fayette	20,081	Robert V. Hight.
Laporte	10,525	Paul Van Riper.
Lawrenceburg	3,930	Jesse W. Riddle.
Lebanon	5,474	H. G. Brown.
Linton	5,506	Slater Bartlow, jr.
Logansport	19,050	Albert H. Douglass.
Madison	6,934	Homer Long.
Marion	19,359	A. E. Highley.
Martinsville	4,529	A. L. Trester.
Michigan City	19,027	L. W. Keeler.
Mishawaka	11,886	D. W. Horton.
Mitchell	3,438	John H. Shipp.
Montpelier	2,786	L. E. Kelley.
Mount Vernon	5,563	W. S. Painter.
Muncie	24,005	T. F. Fitzgibbon.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
INDIANA—contd.		
New Albany	20,629	H. A. Buerk.
Newcastle	9,446	E. J. Llewellyn.
Noblesville	5,073	Alvin C. Payne.
North Vernon	2,915	G. M. Hopkins.
Peru	10,910	E. B. Wetherow.
Plymouth	3,838	Louis E. Steinbach.
Portland	5,130	Grant E. Derbyshire.
Princeton	6,448	James W. Stott.
Richmond	22,324	J. T. Giles.
Rochester	3,364	A. L. Whitmer.
Rockport	2,736	Charles E. Skinner.
Rushville	4,925	J. H. Scholl.
Seymour	6,305	T. A. Mott.
Shelbyville	9,500	J. W. Holton.
South Bend	53,684	J. F. Nuner.
Sullivan	4,115	C. N. Vance.
Tell City	3,369	Christian Newman.
Terre Haute	58,157	C. J. Waits.
Tipton	4,075	H. M. Dixon.
Union City	3,209	O. H. Greist.
Valparaiso	6,987	C. W. Boucher.
Vincennes	14,895	J. W. Foreman.
Wabash	8,687	Owen J. Neighbours.
Warsaw	4,430	James M. Leffel.
Washington	7,854	Ralph N. Tirey.
West Lafayette	3,867	F. A. Burtsfield.
West Terre Haute	3,083	T. V. Pruitt.
Whiting	6,587	J. H. Hoskinson.
Winchester	4,266	Oscar R. Baker.
IOWA.		
Albia	4,969	Harry D. Kies.
Algona	2,908	J. F. Overmyer.
Ames	4,223	E. J. Bodwell.
Anamosa	2,983	T. M. Clevenger.
Atlantic	4,560	A. L. Boyer.
Belle Plaine	3,121	George S. Wooten.
Boone	10,347	E. C. Meredith.
Burlington	24,324	W. L. Hanson.
Carroll	3,546	E. T. Housh.
Cedar Falls	5,012	F. L. Mahannah.
Cedar Rapids	32,811	J. J. McConnell.
Centerville	6,936	H. M. Taylor.
Chariton	3,794	I. L. Guernsey.
Charles City	5,892	Claude F. Brown.
Cherokee	4,884	F. W. Johansen.
Clarinda	3,832	Ernest L. Weaver.
Clinton	25,577	Frank W. Hicks.
Colfax	2,524	S. A. Potts.
Council Bluffs	29,292	Theodore Saam.
Cresco	2,658	A. I. Tiss.
Creston	6,924	Adam Pickett.
Davenport	43,028	Frank L. Smart.
Decorah	3,592	Eva M. Fleming.
Denison	3,133	C. E. Humphrey.
Des Moines	86,368	Z. C. Thornburg.
Dubuque	38,494	James H. Harris.
Eagle Grove	3,387	W. H. Fasold.
Estherville	3,404	F. H. Sunderlin.
Fairfield	4,970	Arthur W. Crane.
Fort Dodge	15,543	L. H. Minkel.
Fort Madison	8,900	Jas. W. Fish.
Glenwood	4,052	J. R. Neveln.
Grinnell	5,036	Eugene Henely.
Hampton	2,617	B. W. Tallman.
Harlan	2,570	Mary J. Wyland.
Independence	3,517	T. J. Tormey.
Indianola	3,283	O. E. Smith.
Iowa City	10,091	L. F. Mead.
Iowa Falls	2,797	O. S. Von Krog.
Keokuk	14,008	William Aldrich.
Knoxville	3,190	J. M. Davis.
Le Mars	4,157	S. T. Neveln.
Manchester	2,758	J. S. Hilliard.
Maquoketa	3,570	B. S. Moyle.
Marion	4,400	O. M. Carson.
IOWA—contd.		
Marshalltown	13,374	A. Palmer.
Mason City	11,230	F. T. Vasey.
Missouri Valley	3,187	M. C. Galpin.
Mount Pleasant	3,874	C. W. Cruikshank.
Muscatine	16,178	Ira H. McIntire.
Mystic	2,663	Chas. C. Foley.
Newton	4,616	H. P. Smith.
Oelwein	6,028	Silas W. Johnson.
Oskaloosa	9,466	O. P. Flower.
Ottumwa	22,012	H. E. Blackmar.
Pella	3,021	F. M. Frush.
Perry	4,630	H. W. Chehock.
Red Oak	4,830	J. R. Inman.
Sheldon	2,941	E. S. Selle.
Shenandoah	4,976	C. F. Garrett.
Sioux City	47,828	M. G. Clark.
Spencer	3,005	J. R. McAnelly.
Valley Junction	2,573	J. S. Hofer.
Vinton	3,336	K. D. Miller.
Washington	4,308	C. J. Schmitt.
Waterloo:		
East Side	26,693	C. W. Kline.
West Side		A. T. Hukill.
Waverly	3,205	W. H. Ray.
Webster City	5,208	D. M. Kelly.
Winterset	2,818	M. R. Hassel.
KANSAS.		
Abilene	4,118	W. A. Stacey.
Anthony	2,669	T. A. Edgerton.
Arkansas City	7,508	C. E. St. John.
Atchison	16,429	H. P. Study.
Beloit	3,082	W. O. Steen.
Caney	3,597	P. B. Humphry.
Chanute	9,272	John F. Hughes.
Cherryvale	4,304	N. A. Baker.
Clay Center	3,438	Emil Kratochvil.
Coffeyville	12,687	Thomas Scott.
Columbus	3,064	M. L. Catlett.
Concordia	4,415	J. E. Edgerton.
Council Grove	2,545	J. J. Haney.
Dodge City	3,214	R. E. Long.
Eldorado	3,129	J. W. Murphy.
Emporia	9,058	L. A. Lowther.
Fort Scott	10,463	H. D. Ramsey.
Fredonia	3,040	A. I. Decker.
Frontenac	3,396	H. L. Paslay.
Galena	6,096	E. E. Stonecipher.
Garden City	3,178	E. J. Dumond.
Great Bend	4,622	A. L. Bell.
Herington	3,273	E. E. Mitchell.
Hiawatha	2,974	George Pinney.
Holton	2,842	E. W. Leamer.
Horton	3,600	Fred Thompson.
Humboldt	2,548	Chas. M. Hilleary
Hutchinson	16,364	J. O. Hall
Independence	10,480	C. S. Risdon.
Iola	9,032	Charles Wagner.
Junction City	5,598	J. H. Clement.
Kansas City	82,331	M. E. Pearson.
Kingman	2,570	Guy H. Goggard.
Larned	2,911	R. V. Phinney.
Lawrence	12,374	Raymond A. Kent.
Leavenworth	19,363	M. E. Moore.
McPherson	3,546	R. W. Potwin.
Manhattan	5,722	E. B. Gift.
Neodesha	2,872	V. M. Liston.
Newton	7,862	B. F. Martin.
Olathe	3,272	E. N. Hill.
Osawatomie	4,046	C. A. Axton.
Ottawa	7,651	A. F. Senter.
Paola	3,207	Mabel Kent.
Parsons	12,463	John F. Barnhill.
Pittsburg	14,755	John F. Bender.
Pratt	3,302	J. F. Reynolds.
Rosedale	5,960	Armon P. Vaughn.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
KANSAS—contd.		
Salina	9,688	W. S. Heusner.
Topeka	43,684	A. J. Stout.
Wellington	7,034	Gordon E. Bailey.
Wichita	52,450	L. W. Mayberry.
Winfield	6,700	J. W. Gowans.
KENTUCKY.		
Ashland	8,688	J. W Bradner.
Bellevue (P. O. Newport)	6,683	J. W. Ireland.
Bowling Green	9,173	T. C. Cherry.
Catlettsburg	3,520	J. O. Faulkner.
Central City	2,545	T. S. Williams.
Corbin	2,589	T. B. Chilton.
Covington	53,270	H. S. Cox.
Cynthiana	3,603	R. I. Cord.
Danville	5,420	L. C. Bosley.
Dayton	6,979	L. N. Taylor.
Earlington	3,931	C. E. Dudley.
Frankfort	10,465	H. C. McKee.
Franklin	3,063	E. B. Weathers.
Fulton	2,575	J. C. Cheek.
Georgetown	4,533	L. G. Wesley.
Harrodsburg	3,147	J. G. Prather.
Henderson	11,452	J W. Welch.
Hickman	2,736	J. M. Calvin.
Hopkinsville	9,419	T. C. Waller.
Lebanon	3,077	J. R. Sterrett.
Lexington	35,099	M. A. Cassidy.
Louisville	223,928	O. L. Reid.
Ludlow	4,163	W. D. Reynolds.
Madisonville	4,966	R. H. Gatton.
Mayfield	5,916	G. A. Young.
Maysville	6,141	W. J. Caplinger.
Middlesboro	7,305	T. W. Oliver.
Morganfield	2,725	R. A. Edwards.
Mount Sterling	3,932	W. O. Hopper.
Newport	30,309	W. P. King.
Nicholasville	2,935	H. L. Smith.
Owensboro	16,011	J. H. Risley.
Paducah	22,760	Ralph Yakel.
Paris	5,859	Lee Kirkpatrick.
Princeton	3,015	S. V. Medling.
Richmond	5,340	D. W. Bridges.
Russellville	3,111	W. N. Shackleford.
Shelbyville	3,412	J. T. Hazelrigg.
Somerset	4,491	J. P. W. Brouse.
Winchester	7,156	O. H. Harris.
LOUISIANA.		
Abbeville	2,907	J. H. Williams.
Alexandria	11,213	C. C. Henson.
Baton Rouge	14,897	P. H. Griffith.
Covington	2,601	A. J. Park.
Crowley	5,099	J. W. Mobley.
Donaldsonville	4,090	R. S. Vickers.
Franklin	3,857	Charles Gott.
Hammond	2,942	W. J. Dunn.
Houma	5,024	H. L. Bourgeois.
Jennings	3,925	W. P. Arnette.
Kentwood	3,609	Paul Weiss.
Lafayette	6,392	L. J. Alleman.
Lake Charles	11,449	James N. Yeager.
Minden	3,002	C. H. Young.
Monroe	10,209	Ernest L. Neville.
Morgan City	5,477	L. A. Law.
Natchitoches	2,532	
New Iberia	7,499	
New Orleans	339,075	Jos. M. Gwinn.
Opelousas	4,623	W. C. Perrault.
Patterson	2,998	P. C. Rogers, jr.
Plaquemine	4,955	Hugh J. Smith.
Ruston	3,377	H. L. Campbell.
LOUISIANA—con.		
Shreveport	28,015	C. E. Byrd.
Thibodaux	3,824	W. S. Lafargue.
Winnfield	2,925	A. Leonard Allen.
MAINE.[1]		
Auburn	15,064	H. H. Randall.
Augusta	13,211	Herman H. Stuart.
Bangor	24,803	D. L. Wormwood.
Bar Harbor	4,441	Frank McGouldrick.
Bath	9,396	G. A. Stuart.
Belfast	4,618	Edward E. Roderick.
Biddeford	17,079	I. Z. Allen.
Brewer	5,667	Fred W. Burrill.
Bridgton	2,660	F. E. Russell.
Brunswick	6,621	John H. Cone.
Calais	6,116	W. H. Phinney.
Camden	3,015	B. E. Packard.
Caribou	5,377	C. A. Grant.
Chelsa (P. O. Whitefield).	3,216	Raymond C. Beale.
Dexter	3,530	Jas. A. Hamlin.
East Livermore (P. O. Livermore Falls).	2,641	J. H. Carter.
Eastport	4,961	W. H. Sturtevant.
Ellsworth	3,549	William H. Patten.
Fairfield	4,435	H. E. Bowman.
Farmington	3,210	Wm. B. Woodbury.
Fort Fairfield	4,381	C. E. Glover.
Fort Kent	3,710	Joseph F. Cyr.
Gardiner	5,311	Leland A. Ross.
Gorham	2,822	(See Westbrook.)
Hallowell	2,864	W. F. Packard.
Houlton	5,845	Thomas P. Packard.
Jay	2,987	Merton T. Goodrich.
Kennebunk	3,099	Isaac H. Storer.
Kittery	3,533	(See York.)
Lewiston	26,247	C. W. Bickford.
Lisbon (P. O. Lisbon Falls).	4,116	A. Raymond Carter.
Lubec	3,363	Maynard E. Wright.
Madison	3,379	L. W. Gerrish.
Millinocket	3,398	W. M. Marr.
Milo	2,556	F. L. Higgins.
Norway	3,032	True C. Morrill.
Old Town	6,317	W. O. Chase.
Orono	3,555	(See Old Town).
Paris	3,436	M. C. Joy.
Pittsfield	2,891	Wm. E. Stuart.
Portland	58,571	Wm. D. Fuller.
Presque Isle	5,179	(See Old Town.)
Rockland	8,174	Roscoe L. West.
Rumford	6,777	L. E. Williams.
Saco	6,583	T. T. Young.
Sanford	9,049	R. P. Mitchell.
Skowhegan	5,341	L. W. Gerrish.
South Berwick	2,935	Wm. C. McCue.
South Portland	7,471	S. M. Hamlin.
Van Buren	3,065	C. L. O'Connell.
Waldoboro	2,656	V. V. Thompson.
Waterville	11,458	Chas. N. Perkins.
Westbrook	8,281	Richard J. Libby.
Winslow	2,709	George E. Paine.
York	2,802	Eugene S. Foster.
MARYLAND.[2]		
Annapolis	8,609	George Fox.
Baltimore	558,485	Charles J. Koch.
Brunswick	3,721	G. L. Palmer, Frederick.
Cambridge	6,407	James B. Noble.
Chestertown	2,735	Edw. J. Clarke.

[1] For other Maine superintendents see p. 52.

[2] The county superintendents of Maryland supervise the city schools in their respective counties. Baltimore City has a separate school organization.

XIII.—SUPERINTENDENTS OF PUBLIC SCHOOLS IN CITIES AND TOWNS—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
MARYLAND—con.		
Crisfield	3,468	W. H. Dashiell, Princess Anne.
Cumberland	21,839	Edw. F. Webb.
Easton	3,083	Nicholas Orem.
Frederick	10,411	G. Lloyd Palmer.
Frostburg	6,028	Edw. F. Webb, Cumberland.
Hagerstown	16,507	Chas. E. Dryden.
Havre de Grace	4,212	C. M. Wright, Bel Air.
Salisbury	6,690	J. M. Bennett.
Westernport	2,702	Edw. F. Webb, Cumberland.
Westminster	3,295	M. S. H. Unger.
MASSACHUSETTS.[1]		
Abington	5,455	C. A. Record.
Adams	13,026	Francis A. Bagnall.
Agawam	3,501	W. E. Gushee.
Amesbury	9,894	Edmund K. Arnold.
Amherst	5,112	J. D. Brooks.
Andover	7,301	H. C. Sanborn.
Arlington	11,187	George C. Minard.
Athol	8,536	W. S. Ward.
Attleboro	16,215	L. A. Fales.
Ayer	2,797	F. C. Johnson.
Barnstable	4,676	G. H. Galger.
Barre	2,957	Albert S. Cole.
Belmont	5,542	George P. Armstrong.
Beverly	18,650	S. H. Chace.
Billerica	2,789	E. C. Vining.
Blackstone	5,648	Harry Gardner.
Boston	670,585	Frank V. Thompson.
Braintree	8,066	Clarence N. Flood.
Bridgewater	7,688	C. A. Record.
Brockton	56,878	John F. Scully.
Brookline	27,792	Geo. I. Aldrich.
Cambridge	104,839	Michael E. Fitzgerald.
Canton	4,797	J. C. Davis.
Chelmsford	5,010	Walter K. Putney.
Chelsea	32,452	Frank E. Parlin.
Chicopee	25,401	John C. Gray.
Clinton	13,075	Thomas F. Gibbons.
Cohasset	2,585	Stanley C. Lary.
Concord	6,421	Wells A. Hall.
Dalton	3,568	H. L. Allen.
Danvers	9,407	Frederic B. Knight.
Dartmouth	4,378	F. L. Kendall.
Dedham	9,284	Roderick W. Hine.
Dracut	3,461	C. L. Randall.
Dudley	4,267	W. F. Sims.
East Bridgewater	3,363	Edgar H. Grout.
Easthampton	8,524	W. D. Miller.
Easton	5,139	C. E. Wheeler.
Everett	33,484	Fairfield Whitney.
Fair Haven	5,122	O. H. Toothaker.
Fall River	119,295	H. L. Belisle.
Falmouth	3,144	Carl Holman.
Fitchburg	37,826	E. W. Robinson.
Foxboro	3,863	Ira A. Jenkins.
Framingham	12,948	Ernest W. Fellows.
Franklin	5,641	Arthur W. Hale.
Gardner	14,699	Fordyce T. Reynolds
Gloucester	24,398	T. M. Haines.
Grafton	5,705	Geo. A. Coe.
Great Barrington	5,926	Russell H. Bellows.
Greenfield	10,427	Winthrop P. Abbott. (See Barre.)
Hardwick	3,524	
Haverhill	44,115	Clarence H. Dempsey.
Hingham	4,965	O. K. Collins.
Holbrook	2,816	James J. Quinn.
Holliston	2,711	Carroll H. Drown.
Holyoke	57,730	Francis McSherry.
Hudson	6,743	C. S. Lyman.
Ipswich	5,777	Joseph I. Horton.
Lawrence	85,892	Bernard M. Sheridan
Lee	4,106	Clarence E. Michels.
Leicester	3,237	George B. Clarke.
Lenox	3,060	C. A. Tucker.
Leominster	17,580	Wm. H. Perry.
Lexington	4,918	A. H. Carver.
Lowell	106,294	H. J. Molloy.
Ludlow	4,948	W. E. Gushee.
Lynn	89,336	Charles S. Jackson.
Malden	44,404	Farnsworth G. Marshall.
Manchester	2,673	John C. Mackin.
Mansfield	5,183	Everett W. Robinson.
Marblehead	7,338	L. Thomas Hopkins.
Marlboro	14,579	Ernest P. Carr.
Maynard	6,390	William H. Mullington.
Medfield	3,466	Albert S. Ames.
Medford	23,150	Fred H. Nickerson.
Medway	2,696	Carroll H. Drown.
Melrose	15,715	John C. Anthony.
Methuen	11,448	Edwin L. Haynes.
Middleboro	8,214	Charles H. Bates.
Milford	13,055	Almorin O. Caswell
Milbury	4,740	C. C. Ferguson.
Milton	7,924	Herbert J. Chase.
Monson	4,758	F. A. Wheeler.
Montague	6,866	M. O. Edson.
Nantucket	2,962	E. S. Tirrell.
Natick	9,866	Edgar L. Willard.
Needham	5 026	Nelson G. Howard.
New Bedford	96,652	Allen P. Keith.
Newburyport	14,949	William C. Moore.
Newton	39,806	Ulysses G. Wheeler.
North Adams	22,019	Burr J. Merriam.
Northampton	19,431	F. K. Congdon.
North Andover	5,529	Dana P. Dame.
North Attleboro	9,562	G. W. Morris.
Northbridge	8,807	S. A. Melcher.
North Brookfield	3,075	James Hayes.
Norton	2,544	Ira A. Jenkins.
Norwood	8,014	Austin H. Fitz.
Orange	5,282	J. F. Allison.
Oxford	3,361	O. C. Ferguson.
Palmer	8,610	Clifton H. Hobson.
Peabody	15,721	Albert Robinson.
Pepperell	2,053	A. R. Paull.
Pittsfield	32,121	Clair G. Persons.
Plymouth	12,141	Chas. A. Harris.
Provincetown	4,369	Chas. M. Pennell.
Quincy	32,642	Albert L. Barbour.
Randolph	4,301	(See Holbrook.)
Reading	5,818	Adelbert L. Safford.
Revere	18,219	Geo. M. Bemis.
Rockland	6,928	Leon O. Merrill.
Rockport	4,211	W. F. Eldredge.
Salem	43,697	William W. Andrew.
Saugus	8,047	Jesse W. Lambert.
Somerset	2,798	Fred C. Tenney.
Somerville	77,236	Charles S. Clark.
Southbridge	12,592	F. E. Corbin.
South Hadley	4,894	F. E. Whittemore.
Spencer	6,740	John J. Howard.
Springfield	88,926	James H. Van Sickle.
Stoneham	7,090	A. B. Webber.
Stoughton	6,316	L. W. Robbins.
Sutton (P. O. Auburn).	3,078	H. H. Pratt.
Swampscott	6,204	Willard M. Whitman
Taunton	34,259	Henry W. Harrub.
Templeton	3,756	A. M. Jones.
Tewkesbury	3,750	C. L. Randall.

[1] For other Massachusetts superintendents see pp. 54–55.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
MASSACHUSETTS—continued.		
Uxbridge	4,671	C. L. Judkins.
Wakefield	11,404	Willard B. Atwell.
Walpole	4,892	Harrie J. Phipps.
Waltham	27,834	Chas. N. Perkins.
Ware	8,774	G. W. Cox.
Wareham	4,102	H. N. Knox.
Warren	4,188	John Bacon.
Watertown	12,875	Wilfred H. Price.
Webster	11,509	Wm. F. Sims.
Wellesley	5,413	S. Monroe Graves.
Westboro	5,446	Thos. S. Grindle.
Westfield	16,044	Chester D. Stiles.
Westford	2,851	Frank H. Hill.
Westport	2,928	Edward L. Hill.
West Springfield	9,224	Carl Cotton.
Weymouth	12,895	Parker T. Pearson.
Whitman	7,292	Elwood T. Wyman.
Williamstown	3,708	W. G. Mitchell.
Winchendon	5,678	Albert J. Chidester.
Winchester	9,309	John R. Fausey.
Winthrop	10,132	Frank A. Douglas.
Woburn	15,308	George I. Clapp.
Worcester	145,986	H. S. Gruver.
MICHIGAN.		
Adrian	10,763	Carl H. Griffey.
Albion	5,833	L. W. Fast.
Allegan	3,419	A. H. Robertson.
Alma	2,757	A. F. Schultz.
Alpena	12,706	Robert D. Ford.
Ann Arbor	14,817	H. M. Slauson.
Battle Creek	25,267	W. G. Coburn.
Bay City	45,166	Frank A. Gause.
Belding	4,119	S. J. Skinner.
Benton Harbor	9,185	F. A. Jensen.
Bessemer	4,583	C. R. Cobb.
Big Rapids	4,519	Don Harrington.
Boyne City	5,218	A. G. Stead.
Cadillac	8,375	G. A. McGee.
Calumet	32,845	E. J. Hall.
Charlotte	4,886	Chas. H. Carrick.
Cheyboygan	6,859	W. L. Barr.
Coldwater	5,945	T. E. Johnson.
Crystal Falls	3,775	W. D. Hill.
Detroit	465,766	Charles E. Chadsey.
Dowagiac	5,088	A. F. Frazee.
East Jordan	2,516	George B. Crawford.
Escanaba	13,194	F. E. King.
Flint	38,550	A. N. Cody.
Gladstone	4,211	E. J. Willman.
Grand Haven	5,856	Arthur Dondineau.
Grand Ledge	2,893	Jonas Sawdon.
Grand Rapids	112,571	Wm. A. Greeson.
Greenville	4,045	A. R. Shigley.
Hamtramck	3,559	E. G. Van Dev nter.
Hancock	8,981	H. D. Lee.
Hastings	4,383	E. J. Lederle.
Highland Park	4,120	T. J. Knapp.
Hillsdale	5,001	S. J. Gier.
Holland	10,490	E. E. Fell.
Houghton	5,113	A. W. Goodale.
Ionia	5,030	A. A. Rather.
Iron Mountain	9,216	M. B. Travis.
Ironwood	12,821	E. T. Duffield.
Ishpeming	12,448	C. L. Phelps.
Jackson	31,433	E. O. Marsh.
Kalamazoo	39,437	Ellis H. Drake.
Lansing	31,229	J. W. Sexton.
Lapeer	3,946	E. E. Irwin.
Ludington	9,132	R. H. McIntosh.
Manistee	12,381	S. W. Baker.
Manistique	4,722	T. W. Clemo.
Marine City	3,770	H. B. Thompson.
Marquette	11,503	A. R. Watson.
Marshall	4,236	William E. Olds.
MICHIGAN—con.		
Menominee	10,507	John L. Silvernale.
Midland	2,527	J. B. Mott.
Monroe	6,893	Dean S. Spencer.
Mount Clemens	7,707	Arthur S. Hudson.
Mount Pleasant	3,972	G. E. Ganiard.
Munising	2,952	E. L. Abell.
Muskegon	24,062	Paul C. Stetson.
Negaunee	8,460	E. D. Denison.
Niles	5,156	O. W. Haisley.
Norway	4,974	C. J. Borchardt.
Onaway	2,702	C. T. Milner.
Otsego	2,812	Charles R. Johnson.
Owosso	9,639	O. H. Voelker.
Petoskey	4,758	J. W. Kelder.
Pontiac	14,532	G. L. Jenner.
Port Huron	18,863	H. A. Davis.
River Rouge	4,163	Alex McDonald.
Saginaw: East Side, West Side	50,510	W. W. Warner. F. W. Arbury.
St Clair	2,633	O. M. Misenar.
St. Johns	3,154	Frank P. Buck.
St. Joseph	5,936	E. P. Clarke.
Sault Ste. Marie	12,615	George G. Malcolm.
South Haven	3,577	T. E. Hook.
Sturgis	3,635	Carl N. Ferner.
Three Rivers	5,072	F. W. Crawford.
Traverse City	12,115	G. H. Curtis.[1]
Wyandotte	8,287	F. W. Frostic.
Ypsilanti	6,230	W. B. Arbaugh.
MINNESOTA.		
Albert Lea	6,192	C. C. Baker.
Alexandria	3,001	F. M. Yockey.
Anoka	3,972	F. H. Koos.
Austin	6,960	H. E. Wheeler.
Bemidji	5,099	W. G. Bolcom.
Brainerd	8,526	W. C. Cobb.
Chisholm	7,684	J. P. Vaughan.
Cloquet	7,031	Peter Olesen.
Crookston	7,559	G. H. Sanberg.
Detroit	2,807	John B. Hogen.
Duluth	78,466	Kremer J. Hoke.
East Grand Forks	2,533	F. E. Lurton.
Ely	3,572	H. E. White.
Eveleth	7,036	C. H. Barnes.
Fairmont	2,958	D. S. Brainard.
Faribault	9,001	Jno. Munroe.
Fergus Falls	6,887	W. O. Lippitt.
Hastings	3,983	Paul R. Spencer.
Hibbing	8,832	Claude C. Alexander.
Lake City	3,142	C. W. Brown.
Little Falls	6,078	F. W. Dobbyn.
Luverne	2,540	H. C. Bell.
Mankato	10,365	F. J. Sperry.
Melrose	2,591	E. J. Sweeney.
Minneapolis	301,408	Bennett B. Jackson.
Montevideo	3,056	J. J. Bohlander.
Moorhead	4,840	M. L. Jacobson.
New Ulm	5,648	H. C. Hess.
Northfield	3,265	M. P. Fobes.
Owatonna	5,658	W. B. Thornburgh.
Red Wing	9,048	O. W. Herr.
Richfield (P. O. Minneapolis).	2,673	May H. Dills.
Rochester	7,844	H. A. Johnson.
St. Cloud	10,600	Charles H. Maxson.
St. Paul	214,744	S. O. Hartwell.
St. Peter	4,176	Emily Brown.
South St. Paul	4,510	D. E. Hickey.
Staples	2,558	C. E. Young.
Stillwater	10,198	J. C. Davies.
Thief River Falls	3,714	J. H. Hay.
Two Harbors	4,990	C. E. Campton.
Virginia	10,473	P. P. Colgrove.
Wabasha	2,622	L. U. Towle.

[1] Acting.

XIII.—SUPERINTENDENTS OF PUBLIC SCHOOLS IN CITIES AND TOWNS—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
MINNESOTA—con.		
Waseca	3,054	S. C. Huffman.
West Minneapolis	3,022	R. J. Mayo.
West St. Paul	2,660	J. W. Klinker.
Willmar	4,135	G. A. Foster.
Winona	18,583	J. V. Voorhees.
MISSISSIPPI.		
Aberdeen	3,708	C. P. Smith.
Bay St. Louis	5,388	C. R. Talbert.
Biloxi	8,049	Ned Kocher.
Brookhaven	5,293	S. M. Byrd.
Canton	3,929	W. H. Braden.
Clarksdale	4,079	H. B. Heidleburg.
Collins	2,581	A. E. Miller.
Columbus	8,989	J. C. Meadows.
Corinth	5,020	M. E. Moffett.
Greenville	9,610	E. E. Bass.
Greenwood	5,836	C. E. Saunders.
Grenada	2,814	C. S. Bigham.
Gulfport	6,386	I. T. Gilmer.
Hattiesburg	11,733	F. B. Woodley.
Jackson	21,262	E. L. Bailey.
Laurel	8,465	R. H. Watkins.
McComb	6,237	W. C. Williams.
Meridian	23,285	D. C. Hull.
Moss Point	3,054	W. M. Alexander.
Natchez	11,791	J. H. Owings.
Okolona	2,584	W. T. Garrett.
Pascagoula	3,379	S. P. Walker.
Starkville	2,698	R. C. Morris.
Tupelo	3,881	J. C. Windham.
Vicksburg	20,814	J. P. Carr.
Water Valley	4,275	Martin Hemphill.
West Point	4,864	J. H. Woodard.
Winona	2,512	O. A. Shaw.
Yazoo City	6,796	H. M. Ivy.
MISSOURI.		
Aurora	4,148	C. W. Anderson.
Boonville	4,252	C. E. Chrane.
Brookfield	5,749	Andrew Jackson.
Butler	2,894	Fred E. Patrick.
Cameron	2,980	A. C. Gwinn.
Cape Girardeau	8,475	J. N. Crocker.
Carrollton	3,452	Geo. D. Dieterich.
Carterville	4,539	W. L. Coonrod
Carthage	9,483	W. C. Barnes.
Caruthersville	3,655	J. H. Goodin.
Charleston	3,144	Geo. W. Kirk.
Chillicothe	6,265	R. L. Threlkeld.
Clinton	4,992	Arthur Lee.
Columbia	9,662	J. E. McPherson.
De Soto	4,721	A. S. Boucher.
Eldorado Springs	2,503	J. A. Leach.
Excelsior Springs	3,900	G. W. Diemer.
Farmington	2,613	W. L. Johns.
Fayette	2,586	C. H. Hitchborn.
Festus	2,556	O. J. Mathias.
Flat River	5,112	J. U. White.
Fredericktown	2,632	E. O. Wiley.
Fulton	5,228	J. T. Bush.
Hannibal	18,341	Livingstone McCartney.
Higginsville	2,628	D. W. Branam.
Independence	9,859	W. L. C. Palmer.
Jefferson City	11,850	
Joplin	32,073	Wm. T. Harris.
Kansas City	248,381	Ira I. Cammack.
Kennett	3,033	A. R. Curry.
Kirksville	6,347	Charles Banks.
Kirkwood	4,191	Nelson Kerr.
Lexington	5,242	B. M. Little.
Liberty	2,980	E. B. Street.
Louisiana	4,454	R. R. Rowley.
Macon	3,584	S. E. Seaton.
Maplewood	4,976	J. Richmond.
Marceline	3,920	John L. Carter.
Marshall	4,869	W. M. Westbrook.
Maryville	4,762	J. M. McDonald.
Mexico	5,939	L. B. Hawthorne.
Moberly	10,923	E. M. Sipple.
Monett	4,177	M. J. Hale.
Neosho	3,661	Charles H. Baldwin.
Nevada	7,176	J. C. Harman.
Poplar Bluff	6,916	G. W. Beswick.
Rich Hill	2,755	Roy D. Brown.
Richmond	3,664	Arthur L. Dailey.
St. Charles	9,437	Joseph Herring.
St. Joseph	77,403	Vernon G. Mays.
St. Louis	687,029	John W. Withers.
Sedalia	17,822	John P. Gass.
Sikeston	3,327	Miles C. Thomas.
Slater	3,238	W. G. Pence.
Springfield	35,201	W. W. Thomas.
Trenton	5,656	Eugene S. Briggs.
Warrensburg	4,689	Edward Beatty.
Washington	3,670	F. H. Hoff.
Webb City	11,817	C. A. Greene.
Webster Groves	7,080	Frank Hamsher.
Wellston	7,312	Ernest F. Bush.
West Plains	2,914	J. W. Pierce.
MONTANA.		
Anaconda	10,134	W. K. Dwyer.
Billings	10,031	W. H. Nye.
Bozeman	5,107	R. J. Cunningham.
Butte	39,165	W. E. Maddock.
Deer Lodge	2,570	O. D. Speer.
Great Falls	13,948	S. D. Largent.
Havre	3,624	N. C. Abbott.
Helena	12,515	John Dietrich.
Kalispell	5,549	W. D. Swetland.
Lewistown	2,992	A. A. Franzke.
Livingston	5,359	B. A. Winans.
Miles City	4,697	J. A. Burger.
Missoula	12,869	Ira B. Fee.
Red Lodge	4,860	A. C. Carlson.
NEBRASKA.		
Alliance	3,105	W. R. Pate.
Auburn	2,729	S. E. Clark.
Aurora	2,630	J. A. Doremus.
Beatrice	9,356	A. J. Stoddard.
Blair	2,584	W. H. Myers.
Chadron	2,687	T. R. Crawford.
Columbus	5,014	C. Ray Gates.
Fairbury	5,294	W. H. Morton.
Falls City	3,255	B. H. Groves.
Fremont	8,718	A. H. Waterhouse.
Grand Island	10,326	Robert J. Barr.
Hastings	9,338	T. W. B. Everhart.
Havelock	2,680	Mrs. Frank F. Adams.[1]
Holdrege	3,030	Dell Gibson.
Kearney	6,202	A. L. Caviness.
Lincoln	43,973	Jesse H. Newlon.
McCook	3,765	J. A. True.
Nebraska City	5,488	W. G. Brooks.
Norfolk	6,025	J. M. Showalter.
North Platte	4,793	Wilson Tout.
Omaha	150,355	J. H. Beveridge.
Plattsmouth	4,287	G. E. De Wolf.
University Place	3,200	A. H. Dixon.
Wymore	2,613	George E. Lee.
York	6,235	A. W. Graham.

[1] Acting.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
NEVADA.		
Goldfield	4,838	E. L. McKeown.
Reno	10,867	B. D. Billinghurst.
Sparks	2,500	C. H. Meeker.
Tonopah	3,900	Geo. L. Dilworth.
NEW HAMPSHIRE.[1]		
Berlin	11,780	Harry L. Moore.
Claremont	7,529	Alonzo J. Knowlton.
Concord	21,497	Louis J. Rundlett.
Conway	3,413	L. M. Felch.
Derry	5,123	Charles W. Cutts.
Dover	13,247	J. E. Wignot.
Exeter	4,897	M. S. Brooks.
Farmington	2,621	F. U. Landman.
Franklin	6,132	George A. Kelch.
Goffstown	2,579	Howard L. Winslow.
Haverhill	3,498	Norman J. Page.
Keene	10,068	Eugene Tuttle.
Laconia	10,183	John S. Gilman.
Lancaster	3,054	H. S. Coday.
Lebanon	5,718	H. Leslie Sawyer.
Littleton	4,069	Guy E. Speare.
Manchester	70,063	Herbert F. Taylor.
Milford	3,939	A. W. Smith.
Nashua	26,005	Charles H. Noyes.[2]
Newmarket	3,348	(See Somersworth.)
Newport	3,675	W. H. S. Ellingwood.
Pembroke	3,062	Henry S. Roberts.
Portsmouth	11,269	Wm. H. Slayton.
Rochester	8,868	Charles A. Breck.
Somersworth	6,704	Edward H. Leonard.
Walpole	2,668	E. J. Best.
NEW JERSEY.		
Asbury Park	10,150	Amos E. Kraybill.
Atlantic City	46,150	Charles B. Boyer.
Bayonne	55,545	Preston H. Smith.
Belleville	7,632	C. R. Gerard.
Bloomfield	15,070	George Morris.
Boonton	4,930	M. P. Reagle.
Bordentown	4,250	Harry V. Holloway.
Boundbrook	3,970	Gaius Hoffman.
Bridgeton	14,209	David C. Porter.
Burlington	8,336	Anna M. Reed.
Camden	94,538	James E. Bryan.
Carlstadt	3,807	George Kintner.
Cliffside Park	3,394	Robert J. Fuller.
Collingswood	4,795	Amos H. Flake.
Dover	7,468	W. V. Singer.
East Newark	3,163	W. J. Gleason.
East Orange	34,371	Albert H. Wilson.[2]
East Rutherford	4,275	F. J. Oglee.
Edgewater	2,655	W. F. Conway.
Elizabeth	73,409	Richard E. Clement.
Englewood	9,924	Elmer C. Sherman.
Flemington	2,693	Joseph N. D. Hickman.
Fort Lee	4,472	Arthur E. Chase.
Freehold	3,233	Edward E. Gaige.
Garfield	10,213	W. H. Steegar.
Glen Ridge	3,260	Sidney G. Firman.
Gloucester	9,462	Wilmer F. Burns.
Guttenberg	5,647	I. G. Miller.
Hackensack	14,050	William E. Stark.
Hackettstown	2,715	William S. Lesh.
Haddonfield	4,142	C. E. Dechant.
Haledon	2,560	Absalom Grundy.
Hammonton	5,088	N. C. Holdridge.
Harrison	14,498	J. F. Prendergast.
Hawthorne	3,400	F. H. Thoms.
Hoboken	70,324	A. J. Demarest.
Irvington	11,877	Robert Lee Saunders.
Jersey City	267,779	Henry Snyder.
Kearny	18,659	Herman Dressel.
Keyport	3,554	W. E. Bilderback.
NEW JERSEY—continued.		
Lambertville	4,657	John H. Herring.
Little Ferry	2,541	Harry Pierson.
Lodi	4,138	Edgar F. Bunce.
Long Branch	13,298	Christopher Gregory.
Madison	4,658	J. T. Godfrey.
Millville	12,451	F. J. Sickles.
Montclair	21,550	Don C. Bliss.
Morristown	12,507	J. Burton Wiley.
Newark	347,469	D. B. Corson.
New Brunswick	23,388	Ira T. Chapman.
Newton	4,467	T. L. Brooks.
North Bergen	15,662	Milton F. Husted.
North Plainfield	6,117	D. Fred Aungst.
Nutley	6,009	John R. Beachler.
Orange	29,630	W. Burton Patrick.
Passaic	54,773	Fred S. Shepherd.
Paterson	125,600	John R. Wilson.
Perth Amboy	32,121	Samuel E. Shull.
Phillipsburg	13,903	Henry J. Neal.
Plainfield	20,550	Henry M. Maxson.
Pleasantville	4,390	Wm. C. Sullivan.
Princeton	5,136	Mabel T. Vanderbilt.
Prospect Park	2,719	Thomas L. Bump.
Rahway	9,337	William F. Little.
Raritan	3,672	George A. West.
Red Bank	7,398	Paul R. Radcliffe.
Ridgewood	5,416	Ira W. Travell.
Roosevelt (P. O. Chrome).	5,786	B. V. Hermann.
Roselle	2,725	R. M. Fraunfelter.
Roselle Park (P. O. Elizabeth).	3,138	L. D. Deyo.
Rutherford	7,045	Clarence A. Fetterly.
Salem	6,614	Walter B. Davis.
Secaucus	4,740	Matthew J. Pechtel.
Somerville	5,060	W. A. Ackerman.
South Amboy	7,007	O. O. Barr.
South Orange	8,993	H. W. Foster.
South River	4,772	T. Frank Tabor.
Summit	7,500	H. B. Sprague.
Tenafly	2,756	Ralph S. Maugham.
Town of Union (P. O. Weehawken).	21,023	N. C. Billings.
Trenton	96,815	Ebenezer Mackey.
Vineland	5,282	Howard L. Reber.
Wallington	3,448	John M. Meyers.
Washington	3,567	S. M. Tressler.
Weehawken	11,228	Frank A. Balch.
Westfield	6,420	Charles A. Philhower.
West Hoboken	35,403	Arthur O. Smith.
West New York	13,560	H. W. Maxson.
West Orange	10,880	Allton H. Sherman.
Wharton	2,983	Wm. P. Curtis.
Woodbury	4,642	M. G. Thomas.
NEW MEXICO.		
Albuquerque	11,020	John Milne.
Clovis	3,255	E. W. Bowyer.
East Las Vegas		Walter B. McFarland.
Las Cruces	3,836	D. F. R. Rice.
Las Vegas	3,755	Mrs. Lou Cobb.
Raton	4,539	L. C. Rhoads.
Roswell	6,172	J. W. Riley.
Santa Fe	5,072	E. J. Roth.
Silver City	3,217	Lela A. Manville.
Tucumcari	2,526	U. O. Anderson.
NEW YORK.		
Albany	100,253	C. Edward Jones.
Albion	5,016	Willis G. Carmer.
Amityville	2,517	George A. Brown.
Amsterdam	31,267	H. T. Morrow.

[1] For other New Hampshire superintendents, see p. 59.

[2] Acting.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
NEW YORK—con.		
Auburn	34,668	Henry D. Hervey.
Babylon	2,600	C. W. Armstrong.
Baldwinsville	3,099	A. Wesley Armitage.
Ballston Spa	4,138	W. A. Andrews.
Batavia	11,613	E. A. Ladd.
Bath	3,884	Edgar A. Lewis.
Beacon	10,629	G. F. Du Bois.
Binghamton	48,443	D. J. Kelly.
Brockport	3,579	Elizabeth S. Barclay.
Buffalo	423,715	Ernest C. Hartwell.
Canandaigua	7,217	Luther N. Steele.
Canastota	3,247	E. H. Rider.
Canton	2,701	S. C. Sumner.
Carthage	3,563	Sherman L. Howe.
Catskill	5,296	Edwin C. Hoemer.
Clyde	2,695	C. B. Adams.
Cohoes	24,709	Edward Hayward.
Cold Spring	2,549	J. F. Freeborn.
Corning:		
District No. 9	24,709	H. H. Chapman.
District No. 13		A. M. Blodgett.
Cornwall	2,658	Herman C. Woodworth.
Cortland	11,504	F. E. Smith.
Dansville	3,938	J. Murray Foster.
Depew	3,921	J. Fred Whitford.
Dobbs Ferry	3,455	B. M. Sheppard.
Dolgeville	2,685	Thos. G. Coffee.
Dunkirk	17,221	Frederick R. Darling.
East Aurora	2,784	Harry W. Mead.
East Syracuse	3,274	Delmar E. Hawkins.
Ellenville	3,114	W. Floyd Harris.
Elmira	37,176	Asher J. Jacoby.
Elmira Heights	2,732	J. C. Benedict.
Fairport	3,112	Albert T. Bouck.
Fort Edward	3,762	Franklin Barber.
Fort Plain	2,762	Herbert Preston.
Frankfort	3,303	B. C. Van Ingen.
Fredonia	5,285	William B. Blaisdell.
Freeport	4,836	Ward C. Moon.
Fulton	10,480	James R. Fairgrieve.
Geneva	12,416	A. J. Merrell.
Glens Falls	15,243	Elbert W. Griffith.
Gloversville	20,642	James A. Estee.
Goshen	5,081	Montgomery C. Smith.
Gouverneur	4,128	Alfred C. Ramsay.
Granville	3,920	R. E. Brown.
Green Island (P. O. Troy).	4,737	James Heatly.
Greenport	3,089	Seward S. Travis.
Hastings upon Hudson.	4,552	H. H. Murphy.
Haverstraw	5,669	L. O. Markham.
Hempstead	4,964	T. Peck Calkins.
Herkimer	7,529	Geo. M. Elmendorf.
Homer	2,695	J. M. Round.
Hoosick Falls	5,232	Clyde Harvey.
Hornell	13,617	F. R. Neild.
Hudson	11,417	Charles S. Williams.
Hudson Falls	5,189	Geo. A. Ingalls.
Ilion	6,588	H. M. Schwartz.
Ithaca	14,802	Frank D. Boynton.
Jamestown	31,297	R. R. Rogers.
Johnson City	3,775	Frank M. Smith.
Johnstown	10,447	Erle L. Ackley.
Kingston	25,908	Myron J. Michael.
Lackawanna	14,549	A. H. Mathewson.
Lancaster	4,364	P. J. Zeilman.
Le Roy	3,771	Earl B. Taylor.
Little Falls	12,273	E. D. Henry.
Lockport	17,970	Emmet Belknap.
Lowville	2,940	M. D. Merring.
Lyons	4,460	W. H. Kinney.
Malone	6,467	R. M. Northup.
Mamaroneck	5,699	Arthur Z. Boothby.
Massena	2,951	D. H. Naylor.
Mechanicsville	6,634	E. H. Burdick.
Medina	5,683	Howard E. Broeder.
Middletown	15,313	James F. Tuthill.
Mount Kisco	2,802	Ezra W. Benedict.
Mount Morris	2,782	R. W. Sherman.
Mount Vernon	30,919	William H. Holmes.
Newark	6,227	William M. Fort.
Newburgh	27,805	Geo. F. Hall.
New Rochelle	28,867	Albert Leonard.
New York	4,766,883	W. L. Ettinger.
Niagara Falls	30,445	John B. Laidlaw.
North Tarrytown	5,421	Charles A. Benedict.
North Tonawanda	11,955	Richard A. Searing.
Norwich	7,422	Stanford J. Gibson.
Nyack	4,619	H. J. Wightman.
Ogdensburg	15,933	Francis C. Byrn.
Olean	14,743	D. E. Batcheller.
Oneida	8,317	Daniel Keating.
Oneonta	9,491	George J. Dann.
Ossining	11,480	William H. Ryan.
Oswego	23,368	Charles W. Richards.
Owego	4,633	I. S. Carroll.
Patchogue	3,824	Wellington E. Gordon.
Peekskill:		
District No. 7	15,245	Fred J. Bohlmann.
District No. 8		A. D. Dunbar.
Penn Yan	4,597	W. E. DeMelt.
Perry	4,388	Wm. H. McClelland.
Plattsburg	11,138	F. K. Watson.
Port Chester	12,809	Elmer S. Redman.
Port Jervis	9,564	A. H. Naylor.
Potsdam	4,036	J. M. Thompson.
Poughkeepsie	27,936	S. R. Shear.
Rensselaer	10,711	Walter S. Clark.
Rochester	218,149	H. S. Weet.
Rockville Center	3,367	W. S. Covert.
Rome	20,497	George R. Staley.
Rye	3,964	Forrest T. Shutts.
Sag Harbor	3,408	Theodore F. Rupp.
St. Johnsville	2,536	J. Harvey Leneker.
Salamanca	5,792	A. W. Fortune.
Saranac Lake	4,983	John R. Palmer.
Saratoga Springs	12,693	Charles L. Mosher.
Saugerties	3,929	E. R. James.
Schenectady	72,826	E. R. Whitney.
Scotia	2,957	R. M. Weidler.
Seneca Falls	6,588	Frederick J. Medden
Sidney	2,507	H. Claude Hardy.
Silver Creek	2,512	Herbert E. Perkins.
Solvay	5,139	Roy B. Kelley.
Southampton	2,509	John G. Peck.
Sufferu	2,663	Aretus P. Burroughs.
Syracuse	137,249	Percy M. Hughes.
Tarrytown	5,600	L. V. Case.
Tonawanda	8,280	Frank K. Sutley.
Troy:		
Union district	76,813	Arvie Eldred.
Lansingburgh district		Neil K. White.
Tuckahoe	2,722	Miss M. M. Horan.
Tupper Lake	3,067	M. A. Shaw.
Utica	74,419	John A. De Camp.
Walden	4,004	E. M. Townsend.
Walton	3,103	Clyde P. Wells.
Wappingers Falls	3,195	J. L. Humbert.
Warsaw	3,206	George W. Glasier.
Waterford	3,245	L. W. Bills.
Waterloo	3,931	Junius D. Meeker.
Watertown	26,730	Frank S. Tisdale.
Watervliet	15,074	Hugh H. Lansing.
Watkins	2,817	John A. Beers.
Waverly	4,855	P. C. Meserve.
Wellsville	4,382	Howard G. Burdge.
Westfield	2,985	Preston K. Pattison.
Whitehall	4,917	A. J. Laidlaw.
White Plains	15,949	John W. Lumbard.
Yonkers	79,803	Charles E. Gorton.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
NORTH CAROLINA.		
Asheville	18,762	Harry Howell.
Belhaven	2,863	Chas. E. Hiatt.
Burlington	4,808	C. W. Rankin.
Charlotte	34,014	H. P. Harding.
Concord	8,715	A. S. Webb.
Durham	18,241	Edwin D. Pusey.
Edenton	2,789	Joe R. Nixon.
Elizabeth City	8,412	S. L. Sheep.
Fayetteville	7,045	W. S. Snipes.
Gastonia	5,759	Joe S. Wray.
Goldsboro	6,107	C. V. Neuffer.
Graham	2,504	Fred Terrell.
Greensboro	15,895	Frederick Archer.
Greenville	4,101	H. G. Swanson.
Henderson	4,503	R. G. Kittrell.
Hendersonville	2,818	George W. Bradshaw.
Hickory	3,716	R. W. Carver.
High Point	9,525	A. A. Taylor.
Kinston	6,995	Kader R. Curtis.
Lenoir	3,364	Horace Sisk.
Lexington	4,163	J. H. Cowles.
Monroe	4,082	R. W. Allen.
Mooresville	3,400	W. C. Ariail.
Morganton	2,712	A. C. Kerley.
Mount Airy	3,844	L. M. Epps.
Newbern	9,961	H. B. Smith.
Oxford	3,018	G. B. Phillips.
Raleigh	19,218	Frank M. Harper.
Reidsville	4,828	J. H. Allen.
Rocky Mount	8,051	R. M. Wilson.
Salisbury	7,153	T. Wingate Andrews.
Shelby	3,127	I. C. Griffin.
Statesville	4,599	D. Matt. Thompson.
Tarboro	4,129	R. H. Bachman.
Thomasville	3,877	J. N. Hauss.
Washington	6,211	Frank L. Ashley.
Wilmington	25,748	Jno. J. Blair.
Wilson	6,717	Charles L. Coon.
Winston-Salem	17,167	R. H. Latham.
NORTH DAKOTA.		
Bismarck	5,443	J. M. Martin.
Devils Lake	5,157	Nelson Sauvain.
Dickinson	3,678	P. S. Berg.
Fargo	14,331	Arthur Deamer.
Grand Forks	12,478	J. Nelson Kelly.
Jamestown	4,358	Norman C. Koontz.
Mandan	3,873	C. L. Love.
Minot	6,188	L. A. White.
Valley City	4,606	G. W. Hanna.
Williston	3,124	C. E. Blume.
OHIO.		
Akron	69,067	H. V. Hotchkiss.
Alliance	15,083	B. F. Stanton.
Ashland	6,795	John A. McDowell.
Ashtabula	18,266	H. C. Dieterich.
Athens	5,463	Geoffrey F. Morgan.
Barberton	9,410	U. L. Light.
Barnesville	4,233	W. A. Zaugg.
Bellaire	12,946	J. V. Nelson.
Bellefontaine	8,238	R. J. Kiefer.
Bellevue	5,209	C. M. Carrick.
Berea	2,609	H. B. Alberty.
Bowling Green	5,222	David Bryant.
Bridgeport	3,974	S. A. Gellett.
Bryan	3,641	J. W. Wyandt.
Bucyrus	8,122	W. W. Borden.
Byesville	3,156	J. S. Talbott.
Cambridge	11,327	W. E. Arter.
Canton	50,217	Wilson Hawkins.
Celina	3,493	C. V. Sensenbaugh.
Chillicothe	14,508	F. J. Prout.
Cincinnati	363,591	Randall J. Condon.
OHIO—continued.		
Circleville	6,744	James C. Bay.
Cleveland	560,663	F. E. Spaulding.[1]
Cleveland Heights	2,955	James W. McLane.
Clyde	2,815	A. J. Love.
Columbus	181,511	John H. Francis.
Conneaut	8,319	E. D. Williamson.
Coshocton	9,603	C. E. Bryant.
Crestline	3,807	A. G. Welshimer.
Crooksville	3,028	E. D. Bates.
Cuyahoga Falls	4,020	W. H. Richardson.
Dayton	116,577	Frank W. Miller.
Defiance	7,327	E. W. Howey.
Delaware	9,076	William McK. Vance.
Delphos	5,038	Hugh R. Hick.
Dennison	4,008	W. H. Angel.
Dover	6,621	S. O. Mase.
East Cleveland	9,179	W. H. Kirk.
East Liverpool	20,387	F. P. Geiger.
East Palestine	3,537	A. D. Ladd.
East Youngstown	4,972	W. M. Coursen.
Eaton	3,187	John O'Leary.
Elmwood Place	3,423	W. S. Eversull.
Elyria	14,825	F. M. Shelton.
Findlay	14,858	I. F. Matteson.
Fostoria	9,597	F. H. Warren.
Franklin	2,659	G. H. Gerke.
Fremont	9,939	F. P. Timmons.
Galion	7,214	J. J. Phillips.
Gallipolis	5,560	O. B. Clifton.
Girard	3,736	H. L. Cash.
Glouster	2,527	M. O. Davis.
Greenfield	4,228	E. W. Patterson.
Greenville	6,237	Minor McCool.
Hamilton	35,279	Darrell Joyce.
Hillsboro	4,296	O. C. Jackson.
Ironton	13,147	C. E. McCorkle.
Jackson	5,468	James Edgar Kinnison.
Kent	4,488	Forrest B. Bryant.
Kenton	7,185	N. E. Hutchinson.
Lakewood	15,181	C. P. Lynch.
Lancaster	13,093	J. R. Clements.
Lebanon	2,698	C. A. Bruner.
Leetonia	2,665	W. E. Pfeister.
Lima	30,508	J. E. Collins.
Lisbon	3,084	Wm. H. Geiger.
Lockland	3,439	A. L. Heer.
Logan	4,850	L. I. Morse.
London	3,530	W. H. Rice.
Lorain	28,883	D. J. Boone.
Mansfield	20,768	H. H. Helter.
Marietta	12,923	B. O. Skinner.
Marion	18,232	Henry A. Hartman.
Martins Ferry	9,133	W. A. Walls.
Marysville	3,576	L. B. Demorest.
Massillon	13,879	Lewis Edwin York.
Medina	2,734	W. E. Conkle.
Miamisburg	4,271	Harris V. Bear.
Middleport	3,194	A. W. McKay.
Middletown	13,152	R. W. Solomon.
Mingo Junction	4,049	Frank Linton.
Montpelior	2,759	G. W. Hoffman.
Mount Vernon	9,087	P. C. Zemer.
Napoleon	4,007	W. R. Ash.
Nelsonville	6,082	D. A. Ferree.
Newark	25,404	O. J. Barnes.
Newcomerstown	2,943	R. M. Marlowe.
New Lexington	2,559	J. E. Way.
New Philadelphia	8,542	Charles F. Limbach.
Niles	8,361	W. C. Campbell.
North Baltimore	2,503	J. O. Grimes.
Norwalk	7,858	C. C. Patterson.
Norwood	16,185	W. S. Cadman.
Oberlin	4,365	Howard L. Rawdon.
Orrville	3,101	M. C. Avery.
Painesville	5,501	C. C. Underwood.

[1] Absent on leave. R. S. Jones, acting.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
OHIO—contd.		
Piqua	13,388	George C. Dietrich.
Pomeroy	4,023	C. T. Coates.
Port Clinton	3,007	J. O. Grimes.
Portsmouth	23,481	Frank Appel.
Ravenna	5,310	E. O. Trescott.
Reading	3,985	J. B. Britton.
St. Bernard	5,002	J. L. Trisler.
St. Marys	5,732	C. C. McBroom.
Salem	8,943	John S. Alan.
Sandusky	19,989	Walter S. Edmund.
Shelby	4,903	W. H. Maurer.
Sidney	6,607	Herbert R. McVay.
Springfield	46,921	George E. McCord.
Steubenville	22,391	Robert L. Erwin.
Struthers	3,370	W. P. Moody.
Tiffin	11,894	Charles A. Krout.
Toledo	168,497	William B. Guitteau.
Toronto	4,271	S. C. Dennis.
Troy	6,122	Charles W. Cookson.
Uhrichsville	4,751	L. E. Everett.
Upper Sandusky	3,779	E. H. Brown.
Urbana	7,739	I. N. Keyser.
Van Wert	7,157	David B. Clark.
Wadsworth	3,073	A. W. Elliott.
Wapakoneta	5,349	F. E. Reynolds.
Warren	11,081	H. B. Turner.
Washington C. H.	7,277	William McClain.
Wauseon	2,650	M. L. Altstetter.
Wellston	6,875	S. H. Maharry.
Wellsville	7,769	A. D. Horton.
West Park	3,179	T. J. Williams.
Willard	2,950	W. C. Kramer.
Wilmington	4,491	E. P. West.
Woodsfield	2,502	R. C. Maston.
Wooster	6,136	George C. Maurer.
Xenia	8,706	J. R. Patterson.
Youngstown	79,066	N. H. Chaney.
Zanesville	28,026	F. C. Kirkendall.
OKLAHOMA.		
Ada	4,349	J. E. Hickman.
Altus	4,821	W. H. Decker.
Alva	3,688	Albert W. Fanning.
Anadarko	3,439	W. H. Bishop.
Ardmore	8,618	C. W. Richards.
Bartlesville	6,181	F. W. Wenner.
Blackwell	3,266	A. J. Lovett.
Chickasha	10,320	William F. Ramey.
Claremore	2,866	Mrs. Mary A. Davis.
Clinton	2,781	E. H. Hornberger.
Coalgate	3,255	A. P. Lever.
Durant	5,330	George C. Rorie.
Elk City	3,165	Arthur L. Richards.
El Reno	7,872	C. E. Grady.
Enid	13,799	E. D. Price.
Frederick	3,027	J. O. Shaw.
Guthrie	11,654	H. T. Flaugher.
Hartshorne	2,963	F. L. Stamps.
Hobart	3,845	T. E. Bartlett.
Hugo	4,582	H. G. Bennett.
Kingfisher	2,538	J. E. Arendell.
Krebs	2,884	W. A. Stackable.
Lawton	7,788	Hugh A. Carroll.
McAlester	12,954	W. G. Masterson.
Mangum	3,667	M. P. Smith.
Miami	2,907	M. R. Floyd.
Muskogee	25,278	Edwin S. Monroe.
Norman	3,724	N. H. Edwards.
Nowata	3,672	H. C. Fisk.
Oklahoma	64,205	J. A. Whiteford.
Okmulgee	4,176	H. B. Bruner.
Pauls Valley	2,689	John T. Butcher.
Pawhuska	2,776	Wm. M. Sinclair.
Perry	3,133	A. I. Fleming.
Ponca City	2,521	J. N. Hamilton.
Purcell	2,740	S. C. Herrin.
OKLAHOMA—con.		
Sapulpa	8,283	E. B. Gardner.
Shawnee	12,474	Hugh G. Faust.
Stillwater	3,444	Ed McCarrel.
Sulphur	3,684	A. C. Floyd.
Tahlequah	2,891	W. T. Scott.
Tulsa	18,182	E. E. Oberholtzer.
Vinita	4,082	C. N. Peak.
Wagoner	4,018	George M. Rydre.
Waurika	2,928	D. T. Smith.
Woodward	2,696	J. W. Tyler.
OREGON.		
Albany	4,275	C. W. Boetticher.
Ashland	5,020	Geo. A. Briscoe.
Astoria	9,599	H. L. Hussong.
Baker	6,742	A. C. Strange.
Corvallis	4,552	J. O. McLaughlin.
Eugene	9,009	W. R. Rutherford.
Grants Pass	3,897	J. G. Imel.
Klamath Falls	2,758	R. H. Dunbar.
La Grande	4,843	A. C. Hampton.
Marshfield	2,980	F. A. Tiedgen.
Medford	8,840	Wm. Davenport.
Oregon City	4,287	F. J. Tooze.
Pendleton	4,460	Fred P. Austin.
Portland	207,214	D. A. Grout.
Roseburg	4,738	Aubrey G. Smith.
Salem	14,094	J. W. Todd.
The Dalles	4,880	R. L. Kirk.
PENNSYLVANIA.		
Allentown	51,913	H. W. Dodd.
Altoona	52,127	S. H. Layton.
Ambler	2,649	J. M. Fisher.
Ambridge	5,205	Chas. S. McVay.
Apollo	3,006	Grace Watt.
Archbald	7,191	W. A. Kelly.
Ashland	6,855	J. C. Weirick.
Ashley	5,601	A. P. Cope.
Aspinwall	2,532	F. D. Kebock.
Athens	3,796	William F. Yoder.
Austin	2,941	H. E. Stover.
Avalon	4,317	S. Todd Perley.
Avoca	4,634	Charles Webber.
Bangor	5,369	J. W. Gruver.
Barnesboro	3,535	G. W. Stephens.
Beaver	3,456	Jonas E. Wagoner.
Beaver Falls	12,191	Floyd Atwell.
Bellefonte	4,145	Arthur H. Sloop.
Bellevue	6,323	T. E. Garber.
Berwick	5,357	J. Y. Shambach.
Bethlehem	32,810	James N. Muir.
Birdsboro	2,930	A. M. Hinkel.
Blairsville	3,572	Harry E. Seville.
Blakely (P. O., Peckville).	5,345	H. B. Anthony.
Bloomsburg	7,413	L. P. Sterner.
Brackenridge	3,134	Venetta J. Travis.
Braddock	19,357	F. C. Steltz.
Bradford	14,544	J. F. Butterworth.
Bridgeport	3,860	H. E. James.
Bristol	9,256	Louise D. Baggs.
Brookville	3,003	H. R. Loeser.
Butler	20,728	John A. Gibson.
Canonsburg	3,891	F. W. McVay.
Carbondale	17,040	Wm. C. Greenawalt.
Carlisle	10,303	John C. Wagner.
Carnegie	10,009	Thomas J. George.
Carrick (P. O., Pittsburgh).	6,117	W. H. Sprenkle
Catasaqua	5,250	H. J. Reinhard.
Chambersburg	11,800	U. L. Gordy.
Charleroi	9,615	Thomas L. Pollock.
Chester	38,537	Charles A. Wagner
Clairton	3,326	F. N. Frits.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
PENNSYLVANIA—continued.		
Clarion	2,612	W. W. Eisenhart.
Clearfield	6,851	George E. Zerfoss.
Clifton Heights	3,155	Sarah Edwards.
Coaldale	5,154	Jno. E. Gildea.
Coatesville	11,034	H. R. Vanderslice.
Columbia	11,454	Wm. C. Sampson.
Connellsville	12,845	Stanley P. Ashe.
Conshohocken	7,480	A. M. Weaver.
Corbin	2,670	Wm. Shetlock.
Coraopolis	5,252	C. E. Hilborn.
Corry	5,991	Charles Nagle.
Coudersport	3,100	L. G. Soper.
Crafton	4,384	J. W. Rutherford.
Curwensville	2,549	R. A. Shields.
Danville	7,517	D. N. Dieffenbacher.
Darby	6,305	Amos Chamberlain.
Derry	2,954	J. C. Bryson.
Dickson City	9,331	P. M. Brennan.
Donora	8,174	T. M. Gilland.
Dorranceton (P. O., Wilkes-Barre).	4,046	C. B. Hanyen, jr.
Downingtown	3,326	A. B. Moyer.
Doylestown	3,304	Carmon Ross.
Dubois	12,623	T. T. Allen.
Dunmore	17,615	C. F. Hoban.
Duquesne	15,727	C. H. Wolford.
Duryea	7,487	F. J. Regan.
East Conemaugh	5,046	J. M. Uhler.
East Mauch Chunk.	3,548	P. H. McCabe.
Easton	28,523	Robert E. Laramy.
East Pittsburgh	5,615	H. L. Koons.
East Stroudsburg	3,330	Charles A. Goss.
Edgewood	2,596	Frank H. Remaley.
Edwardsville (P. O., Wilkes-Barre).	8,407	James O. Herman.
Elizabethtown	2,587	E. U. Aumiller.
Elwood City	3,902	Charles F. Becker.
Emaus	3,501	Howard C. Snyder.
Emporium	2,536	R. W. Clawges.
Ephrata	3,192	Guy K. Bard.
Erie	66,525	I. B. Bush.
Etna (P. O., Pittsburgh).	5,830	E. S. Rice.
Exeter (P. O., Pittston).	3,537	Elizabeth Dougher.
Farrell	10,190	Port Eckles.
Ford City	4,850	W. W. Irwin.
Forest City	5,749	Elmer Jones.
Frackville	3,118	W. R. Trautman.
Franklin	9,767	C. E. Carter.
Freedom	3,060	F. A. Barkley.
Freeland	6,197	N. P. Luckenbill.
Galeton	4,027	R. R. Merrill.
Gallitzin	3,504	R. H. Biter.
Gettysburg	4,030	Helen L. Cope.
Gilberton	5,401	Joseph O. Boyle.
Girardville	4,396	H. E. Anderson.
Glassport	5,540	John S. Hart.
Greensburg	13,012	Thos. S. March.
Greenville	5,909	G. B. Gerberich.
Grove City	3,674	H. M. B. Lehn.
Hanover	7,057	A. J. English.
Harrisburg	64,186	Frederick E. Downes.
Hazleton	30,167	D. A. Harman.
Hollidaysburg	3,734	H. J. Barrett.
Homestead	18,713	Landis Tanger.
Honesdale	2,945	Russell T. Davies.
Huntingdon	6,861	E. R. Barclay.
Indiana	5,749	Harry V. Herlinger.
Irwin	2,886	Samuel Fausold.
Jeannette	8,077	E. W. Long.
Jenkintown	2,968	B. A. Kline.
Jermyn	3,158	William M. Behler.
PENNSYLVANIA—continued.		
Jersey Shore	5,381	J. G. Dundore.
Johnsonburg	4,334	S. M. Robb.
Johnstown	55,482	H. J. Stockton.
Juniata	5,285	M. B. Wineland.
Kane	6,626	H. O. Dietrich.
Kingston	6,449	J. Richmond Merkel.
Kittanning	4,311	Ira M. Gast.
Knoxville	5,651	A. R. Gilbert.
Lancaster	47,227	H. B. Work.
Lansdale	3,551	J. Walter Gapp.
Lansdowne	4,066	Walter L. Philips.
Lansford	8,323	Elmer E. Kuntz.
Larksville (P. O., Wilkes-Barre).	9,288	M. L. McCann.
Latrobe	8,777	R. M. Steele.
Lebanon	19,240	E. M. Balsbaugh.
Leechburg	3,624	S. M. Neagley.
Lehighton	5,316	B. M. Shull.
Lewisburg	3,081	H. S. Bourne.
Lewistown	8,196	W. A. Hutchinson.
Lockhaven	7,772	Clement W. Hunt.
Luzerne	5,426	Theron G. Osborne.
Lykens	2,943	C. H. Auman.
McAdoo	3,389	A. T. O'Donnell.
McDonald	2,543	N. G. Parke.
McKeesport	42,694	Jos. B. Richey.
McKees Rocks	14,702	T. K. Johnston.
Mahanoy City	15,936	H. A. O'Day.
Mauch Chunk	3,952	E. P. Heckert.
Mayfield	3,662	A. L. McCarthy.
Meadville	12,780	Edw. Sargent.
Mechanicsburg	4,469	Ralph Jacoby.
Media	3,502	William C. Joslin.
Meyersdale	2,741	W. H. Kretchman.
Middletown	5,374	H. J. Wickey.
Millvale	7,861	C. C. Williamson.
Milton	7,460	
Miners Mills (P. O., Wilkes-Barre).	3,159	John J. Gallagher.
Minersville	7,240	Chas. F. Roudabush.
Monaca	3,376	Geo. L. Hayes.
Monessen	11,775	H. E. Gress.
Monongahela	7,598	Renwick G. Dean.
Moosic	2,964	Irvin D. Ritter.
Mount Carmel	17,532	Wilbur M. Yeingst.
Mount Oliver	4,241	Minnie Ubinger.
Mount Pleasant	5,812	H. H. De Long.
Mount Union	3,338	W. P. Harley.
Munhall	5,185	Charles R. Stone.
Nanticoke	18,877	A. P. Diffendafer.
Nazareth	3,978	Fredcrick A. Marcks.
New Brighton	8,329	S. W. Lyons.
New Castle	36,280	George A. Dickson.
New Kensington	7,707	Berlin Empfield.
Norristown	27,875	Allen S. Martin.
Northampton	8,729	William D. Landis.
North Braddock	11,824	H. H. Means.
North East	2,672	W. J. McQuiston.
Northumberland	3,517	Myron Geddes.
Oakmont	3,436	W. Lee Gilmore.
Oil City	15,657	James J. Palmer.
Old Forge	11,324	Frank R. Coyne.
Olyphant	8,505	M. W. Cummings.
Parkesburg	2,522	L. R. Coil.
Parnassus	2,578	R. S. Penfield.
Parsons	4,338	E. A. Evans.
Patton	3,907	William Bosserman.
Pen Argyl	3,967	Herbert F. Arnold.
Perkasie	2,779	Lewis H. Wagenhorst.
Philadelphia	1,549,008	John P. Garber.
Phillipsburg	3,585	J. S. F. Ruthrauff.
Phoenixville	10,743	Isaac Doughton.
Pitcairn	4,975	C. G. Pierce.
Pittsburgh	533,905	Wm. M. Davidson.
Pittston	16,267	D. J. Cray.

XIII.—SUPERINTENDENTS OF PUBLIC SCHOOLS IN CITIES AND TOWNS—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
PENNSYLVANIA—continued.		
Plymouth	16,996	S. L. Smith.
Portage	2,954	C. F. Helt.
Port Carbon	2,678	Ira A. Goss.
Pottstown	15,599	W. W. Rupert.
Pottsville	20,236	G. H. Weiss.
Punxsutawney	9,058	Frank S. Jackson.
Quakertown	3,801	Carl G. Leech.
Rankin (P. O. Braddock).	6,042	C. L. Wilson.
Reading	96,071	Charles S. Foos.
Renovo	4,621	Geo. A. Mincemoyer.
Reynoldsville	3,139	G. C. Moose.
Ridgway	5,408	W. M. Peirce.
Rochester	5,903	S. R. Grimm.
Royersford	3,073	J. A. Uhland.
St. Clair (P. O. Mount Oliver).	5,640	
St. Clair (Schuylkill County).	6,455	Thomas G. Jones.
St. Marys	6,346	J. J. Lynch.
Sayre	6,426	L. Edwin De Laney.
Schuylkill Haven	4,747	T. A. Hoover.
Scottdale	5,456	J. N. Wangaman.
Scranton	129,867	Samuel E. Weber.
Sewickley	4,479	George E. Mark.
Shamokin	19,588	Joseph Howerth.
Sharon	15,270	W. D. Gamble.
Sharpsburg	8,153	John J. Donovan.
Sharpsville	3,634	Wm. M. Johnston.
Shenandoah	25,774	J. W. Cooper.
Shippensburg	3,457	A. Lee Shulenberger.
Silver Creek	2,512	P. S. Canfield.
Slatington	4,454	J. W. Snyder.
Somerset	2,612	F. F. Foltz.
South Brownsville	3,943	D. D. Watkins.
South Fork	4,592	W. C. Crawford.
South Williamsport	3,734	A. B. Elder.
Spangler	2,700	T. J. Sullivan.
Spring City	2,880	W. E. De Turck.
Steelton	14,246	L. E. McGinnes.
Stroudsburg	4,379	Robert Brown, jr.
Summit Hill	4,209	E. D. Levengood.
Sunbury	13,770	Walter A. Geesey.
Susquehanna	3,478	A. A. Killian.
Swissvale	7,381	C. C. Kelso.
Swoyersville (P. O. Wilkes-Barre)	5,396	Joseph H. Finn.
Tamaqua	9,462	J. F. Derr.
Tarentum	7,414	A. D. Endsley.
Taylor	9,060	William S. Robinson.
Throop	5,133	John J. O'Hara.
Titusville	8,533	Henry Pease.
Towanda	4,281	F. A. Quackenbush.
Turtle Creek	4,995	W. A. Rodgers.
Tyrone	7,176	F. M. Haiston.
Union City	3,684	M. J. Blanden.
Uniontown	13,344	J. H. Alleman.
Vandergrift	7,314	Chas. H. Omo.
Verona	2,849	U. G. Palmer.
Warren	11,080	R. T. Adams.
Washington	18,778	J. C. Stiers.
Waynesboro	7,199	J. Clair McCullough.
Waynesburg	3,545	R. M. Archibald.
Weatherly	2,501	H. Arthur Fox.
Wellsboro	3,183	R. L. Butler.
West Chester	11,767	Addison L. Jones.
West Homestead (P. O. Homestead).	3,009	F. L. Rose.
West Newton	2,880	F. H. Painter.
West Pittston	6,848	L. P. Bierly.
Wilkes-Barre	67,105	H. H. Zeiser.
Wilkinsburg	18,924	James L. Allison.
Williamsport	31,860	F. W. Robbins.
Williamstown	2,904	Ira C. Mummert.
Wilmerding	6,133	Chas. W. Shaffer.
Windber	8,013	W. W. Lantz.
Winton	5,280	J. J. Judge.
Wyoming	3,040	John E. Pratt.
York	44,750	A. Wanner.
PHILIPPINE ISLANDS.		
Manila	234,400	Jas. F. Scouller.
RHODE ISLAND.[1]		
Bristol	8,565	T. H. De Coudres.
Burrillville (P. O. Harrisville).	7,878	Joseph C. Sweeney.
Central Falls	22,754	Robert K. Bennett.
Coventry	5,848	Henry M. Walradt.
Cranston (P. O. Providence).	21,107	John K. Fenner.
Cumberland (P. O. Manville).	10,107	George W. Morris.
East Greenwich	3,420	Irving C. Phillips.
East Providence	15,808	J. R. D. Oldham.
Johnston (P. O. Providence).	5,935	George F. Weston.
Lincoln (P. O. Central Falls).	9,825	John L. Smith.
Newport	27,149	Herbert W. Lull.
North Kingston	4,048	John P. Fogwell.
North Providence	5,407	August Berau.
North Smithfield (P. O. Woonsocket).	2,699	Edgar F. Hamlin.
Pawtucket	51,622	Frank O. Draper.
Portsmouth	2,681	Isabella G. Chase.
Providence	224,326	Isaac O. Winslow.
Scituate	3,493	I. C. Phillips.
Smithfield	2,739	Clovis W. Mitchell.
South Kingston	5,176	William A. Brady.
Tiverton	4,032	Grace M. Coyne.
Warren	6,585	Leroy G. Staples.
Warwick	26,629	William F. Miner.
Westerly	8,696	Willard H. Bacon.
West Warwick	(2)	John F. Deering.
Woonsocket	38,125	Wendell A. Mowry.
SOUTH CAROLINA.		
Abbeville	4,459	D. R. Riser.
Aiken	3,911	W. Jay McGarity.
Anderson	9,654	E. C. McCants.
Bennettsville	2,646	K. D. Senn.
Camden	3,569	J. G. Richards, jr.
Charleston	58,833	A. B. Rhett.
Cheraw	2,873	S. A. Merchant.
Chester	4,754	W. H. McNairy.
Clinton	3,272	A. C. Daniel.
Columbia	26,319	W. H. Hand.
Darlington	3,789	J. C. Daniel.
Easley	2,983	Geo. W. Coggin.
Florence	7,057	W. L. Brooker.
Gaffney	4,767	J. H. Witherspoon.
Georgetown	5,530	Wm. C. Bynum.
Greenville	15,741	J. L. Mann.
Greenwood	6,614	W. W. Nickels.
Laurens	4,818	Joseph T. Spears.
Marion	3,844	T. C. Easterling.
Newberry	5,028	O. B. Cannon.
Orangeburg	5,906	A. J. Thackston.

[1] For other Rhode Island superintendents see p. 65.

[2] Part of Warwick in 1910.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
SOUTH CAROLINA—continued.		
Rock Hill	7,216	R. C. Burts.
Spartanburg	17,517	Frank Evans.
Sumter	8,109	S. H. Edmunds.
Union	5,623	Davis Jeffries.
SOUTH DAKOTA.		
Aberdeen	10,753	Jos. T. Glenn.
Brookings	2,971	S. E. Hargis.
Deadwood	3,653	H. Nienhuis.
Huron	5,791	Bruce Francis.
Lead	8,392	F. A. Henderson.
Madison	3,137	June Emry.
Mitchell	6,515	J. C. Lindrey.
Pierre	3,656	R. E. Rawlins.
Rapid City	3,854	Robert B. Irons.
Redfield	3,060	Carl M. Bair.
Sioux Falls	14,094	A. A. McDonald.
Watertown	7,010	T. A. Harmon.
Yankton	3,787	Claude W. Street.
TENNESSEE.		
Bristol	7,184	Ralph B. Rubins.
Chattanooga	44,604	C. H. Winder.
Clarksville	8,548	A. J. Smith.
Cleveland	5,549	D. C. Arnold.
Columbia	5,754	R. L. Harris.
Covington	2,990	B. O. Duggan.
Dyersburg	4,149	Walter M. Campbell.
Fayetteville	3,439	Geo. C. Simmons.
Franklin	2,924	R. V. Kennedy.
Harriman	3,061	Dudley S. Tanner.
Humboldt	3,446	H. H. Ellis.
Jackson	15,779	Charles E. Dryden.
Johnson City	8,502	D. M. Andrews.
Knoxville	36,346	W. E. Miller.
Lafollette	2,816	P. W. Kerr.
Lebanon	3,659	W. L. Harris.
Lenoir City	3,392	J. H. Jarvis.
Memphis	131,105	Wharton S. Jones.
Morristown	4,007	C. C. Sherrod.
Murfreesboro	4,679	J. C. Mitchell.
Nashville	110,364	H. C. Weber.
Paris	3,881	M. M. Phillips.
Pulaski	2,928	F. E. Ranck.
Rockwood	3,660	N. A. Steadman.
Shelbyville	2,869	R. T. Allen.
Tullahoma	3,049	T. J. Dotson.
Union City	4,387	A. C. Nute.
TEXAS.		
Abilene	9,204	R. D. Green.
Amarillo	9,957	M. H. Duncan.
Austin	29,860	A. N. McCallum.
Ballinger	3,536	J. M. Skinner.
Bay City	3,156	D. R. Hibbetts.
Beaumont	20,640	H. F. Triplett.
Beeville	3,269	W. E. Madderra.
Belton	4,164	L. H. Hubbard.
Big Spring	4,102	M. H. Brasher.
Bonham	4,844	H. D. Fillers.
Bowie	2,874	T. P. Walker.
Brady	2,669	W. L. Hughes.
Brenham	4,718	Joseph C. Tucker.
Brownsville	10,517	Lizzie M. Barbour.
Brownwood	6,967	J. W. Page.
Bryan	4,132	W. C. Lawson.
Calvert	2,579	H. F. Saunders.
Cameron	3,263	J. E. Watts.
Childress	3,818	B. M. Harrison.
Cleburne	10,364	Emmett Brown.
Coleman	3,046	C. H. Hufford.
Comanche	2,756	R. F. Holloway.
Commerce	2,818	A. L. Day.
TEXAS—contd.		
Corpus Christi	8,222	W. D. Notley.
Corsicana	9,749	J. E. Blair.
Crockett	3,947	Donald McDonald.
Cuero	3,109	A. S. Bush.
Dalhart	2,580	J. A. Webb.
Dallas	92,104	J. F. Kimball.
Denison	13,632	Frank B. Hughes.
Denton	4,732	J. W. Beaty.
Dublin	2,551	S. L. Wolfe.
Eagle Pass	3,536	G. B. M. Snyder.
El Paso	39,279	R. J. Tighe.
Ennis	5,669	J. D. Coghlan.
Fort Worth	73,312	M. H. Moore.
Gainesville	7,624	O. E. Perris.
Galveston	36,981	John W. Hopkins.
Georgetown	3,096	M. A. Cannon.
Gonzales	3,139	K. A. Jones.
Greenville	8,850	L. C. Gee.
Hillsboro	6,115	W. T. Lofland.
Houston	78,800	P. W. Horn.
Houston Heights	6,984	S. P. Waltrip.
Jacksonville	2,875	B. M. Gram'ing.
Jefferson	2,515	A. E. Day.
Laredo	14,855	L. J. Christen.
Lockhart	2,945	T. A. Fisher.
Longview	5,155	S. J. Blocher.
Lufkin	2,749	I. A. Coston.
McKinney	4,714	J. S. Carlisle.
Marlin	3,878	A. C. Ferguson.
Marshall	11,452	J. P. Glasgow.
Mart	2,939	J. G. Toland.
Mexia	2,694	Frederick B. Elliott.
Mineral Wells	3,950	E. O. McNew.
Mount Pleasant	3,137	A. V. Peterson.
Nacogdoches	3,369	R. F. Davis.
Navasota	3,284	J. T. Davis.
New Braunfels	3,165	B. Holekamp.
Orange	5,527	E. B. Stover.
Palestine	10,482	Luther B. Gill.
Paris	11,269	J. G. Wooten.
Plainview	2,829	H. P. Webb.
Port Arthur	7,663	G. M. Sims.
Quanah	3,127	J. W. O'Banion.
San Angelo	10,321	Felix E. Smith.
San Antonio	96,614	Charles S. Meek.
San Marcos	4,071	E. M. Day.
Seguin	3,116	R. E. L. Adams.
Sherman	12,412	J. C. Pyle.
Smithville	3,167	L. W. Land.
Snyder	2,514	S. L. Rieves
Stamford	3,902	J. W. Teasley.
Stephenville	2,561	Henry Sims
Sulphur Springs	5,151	F. V. Garrison.
Sweetwater	4,176	D. A. Clark.
Taylor	5,314	J. E. Watts.
Teague	3,288	J. D. Bramlette.
Temple	10,993	W. W. Clement.
Terrell	7,050	S. M. N. Marrs.
Texarkana	9,790	Geo. H. Carpenter.
Tyler	10,400	T. H. Shelby.
Uvalde	3,998	A. W. Evans.
Vernon	3,195	B. F. Sisk.
Victoria	3,673	V. L. Griffin.
Waco	26,425	B. B. Cobb.
Waxahachie	6,205	G. B. Winn.
Weatherford	5,074	T. W. Stanley.
Wichita Falls	8,200	Lee Clark
Yoakum	4,657	J. H. Burnett.
UTAH.		
American Fork	2,797	James H. Walker.
Bingham	2,881	Lars W. Nielsen.
Brigham	3,685	C. H. Skidmore.
Eureka	3,416	I. L. Williamson.
Lehi	2,964	A. F. Yates.
Logan	7,522	Henry Peterson.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
UTAH—contd.		
Murray	4,057	C. E. Gaufin.
Nephi	2,759	Ray Stewart.
Ogden	25,580	Henry C. Johnson.
Park City	3,439	James L. Kearns.
Provo	8,925	L. E. Eggertsen.
Richfield	2,559	Jos. A. Anderson.
Salt Lake City	92,777	Ernest A. Smith.
Spanish Fork	3,464	J. Preston Creer.
Springville	3,356	
Tooele	2,753	J. U. Hicks.
VERMONT.[1]		
Barre	10,734	Carroll H. White.
Barton	3,346	C. L. Erwin.
Bellows Falls	4,883	(See Rockingham.)
Bennington	8,698	A. W. Varney.
Brandon	2,712	M. A. Sturtevant.
Brattleboro	7,541	Florence M. Wellman.
Burlington	20,468	Merritt D. Chittenden.
Winooski	4,520	George R. Stackpole.
Derby	3,629	E. A. Hamilton.
Essex	2,714	Minnie E. Hays.
Fair Haven	3,095	W. H. Hosmer.
Hardwick	3,201	C. L. Cowles.
Hartford	4,179	Nelson J. Whitehill.
Lyndon	3,204	M. E. Daniels.
Middlebury	2,848	Arthur W. Eddy.
Montpelier	7,856	S. C. Hutchinson.
Morristown (P. O. Morrisville).	2,652	Carlton D. Howe.
Newport	3,684	E. A. Hamilton.
Northfield	3,226	J. Allen Hunter.
Poultney	3,644	W. H. Hosmer.
Proctor	2,871	W. A. Beebe.
Randolph	3,191	George W. Patterson.
Richford	2,907	Edwin F. Greene.
Rockingham (P. O. Bellows Falls).	6,207	W. C. McGinnis.
Rutland	13,546	David B. Locke.
St. Albans	6,381	George S. Wright.
St. Johnsbury	8,098	Walter H. Young.
Springfield	4,784	Herbert D. Casey.
Swanton	3,628	Homer E. Hunt.
Waterbury	3,273	Martin W. Chaffee.
West Rutland	3,427	Philip R. Leavenworth.
Woodstock	2,545	Everett V. Perkins.
VIRGINIA.		
Alexandria	15,329	W. H. Sweeney.
Bedford	2,508	C. M. Abbot.
Big Stone Gap	2,590	Owen R. Easley.
Bristol	6,247	F. B. Fitzpatrick.
Buena Vista	3,245	J. P. McCluer.
Charlottesville	6,765	James G. Johnson.
Clifton Forge	5,748	R. C. Bowton.
Covington	4,234	J. G. Jeter.
Danville	19,020	F. H. Wheatley.
Farmville	2,971	P. T. Atkinson.
Fredericksburg	5,874	E. F. Birckhead.
Hampton	5,505	J. M. Willis.
Harrisonburg	4,879	W. H. Keister.
Lexington	2,931	Harrington Waddell.
Lynchburg	29,494	E. C. Glass.
Marion	2,727	B. E. Copenhaver.
Martinsville	3,368	W. B. Gates.
Newport News	20,205	D. A. Dutrow.
Norfolk	67,452	Richard A. Dobie.
Petersburg	24,127	Frank M. Martin.
Portsmouth	33,190	H. A. Hunt.
Pulaski	4,807	E. L. Darst.
VIRGINIA—contd.		
Radford	4,202	J. P. Whitt.
Richmond	127,628	J. A. C. Chandler.
Roanoke	34,874	D. E. McQuilkin.
Salem	3,849	R. E. Cook.
South Boston	3,516	H. J. Watkins.
Staunton	10,604	J. P. Neff.
Suffolk	7,008	Jos. L. Bell.
Williamsburg	2,714	H. W. Vaden.
Winchester	5,864	Leslie D. Kline.
Wytheville	3,054	J. A. C. Hurt.
WASHINGTON.		
Aberdeen	13,660	Geo. B. Miller.
Anacortes	4,168	W. A. Jennings.
Bellingham	24,298	Elmer L. Cave.
Bremerton	2,993	V. D. Goss.
Centralia	7,311	Edgar Reed.
Chehalis	4,507	R. E. Cook.
Cle Elum	2,749	G. I. Wilson.
Colfax	2,783	J. O. Mattoon.
Ellensburg	4,209	Linden McCullough.
Everett	24,814	A. C. Roberts.
Hillyard	3,276	Thomas Cahill.
Hoquiam	8,171	F. E. Schmidtke.
Olympia	6,996	Chauncey E. Beach.
Port Townsend	4,181	H. R. Taylor.
Pullman	2,602	J. W. Graham.
Puyallup	4,544	E. B. Walker.
Renton	2,710	F. S. Salisbury.
Roslyn	3,126	W. G. Whitfield.
Seattle	237,194	Frank B. Cooper.
Snohomish	3,244	C. W. Hodge.
South Bend	3,023	Jos. R. McOrdle.
Spokane	104,402	Orville C. Pratt.
Tacoma	83,743	Wm. F. Geiger.
Vancouver	9,300	C. W. Shumway.
Walla Walla	19,364	W. M. Kern.
Wenatchee	4,050	Guy W. Bohannan.
Yakima	14,082	A. C. Davis.
WEST VIRGINIA.		
Benwood	4,976	Floyd Hanifan.
Bluefield	11,188	Edwin C. Wade.
Charleston	22,996	Geo. S. Laidley.
Charles Town	2,662	Wright Denny.
Chester	3,184	Elmer E. Oldaker.
Clarksburg	9,201	J. A. Jackson.
Davis	2,615	C. F. Lee.
Elkins	5,260	W. W. Trent.
Fairmont	9,711	Otis G. Wilson.
Grafton	7,563	L. W. Burns.
Hinton	3,656	H. F. Griffey.
Huntington	31,161	C. L. Wright.
Keyser	3,705	J. C. Sanders.
McMechen	2,921	Floyd Hanifan.
Mannington	2,672	David A. Ward.
Martinsburg	10,698	Wm. C. Morton.
Morgantown	9,150	R. C. Smith.
Moundsville	8,918	H. V. Merrick.
Parkersburg	17,842	H. E. Odgers.
Princeton	3,027	J. N. Hoyman.
Richwood	3,061	A. F. Shroyer.
Sistersville	2,684	W. W. Strain.
Wellsburg	4,189	W. N. Beetham.
Wheeling	41,641	C. E. Githens.
Williamson	3,561	A. C. Davis.
WISCONSIN.		
Antigo	7,196	Ernest Iler.
Appleton	16,773	Carrie E. Morgan.
Ashland	11,334	V. T. Thayer.
Baraboo	6,324	A. C. Kingsford.
Beaver Dam	6,758	George R. Ray.

[1] For other Vermont superintendents, see pp. 69–79.

XIII.—Superintendents of Public Schools in Cities and Towns—Contd.

City.	Population, census of 1910.	Superintendent or supervising principal.
WISCONSIN—con.		
Beloit	15,125	F. E. Converse.
Berlin	4,636	F. Stanley Powles.
Burlington	3,212	Fred. L. Witter.
Chippewa Falls	8,893	Geo. O. Banting.
Columbus	2,523	John Dixon.
Cudahy	3,691	Jesse F. Cory.
De Pere	4,477	A. L. Simon.
Eau Claire	18,310	W. A. Clark.
Edgerton	2,513	F. O. Holt.
Fond du Lac	18,797	J. E. Roberts.
Fort Atkinson	3,877	E. H. Miles.
Grand Rapids	6,521	E. G. Doudna.
Green Bay	25,236	A. W. Burton.
Hartford	2,982	Charles H. Karch.
Hudson	2,810	Ira O. Hubbard.
Janesville	13,894	H. H. Faust.
Jefferson	2,582	Will G. Ballentine.
Kaukauna	4,717	Leo G. Schussmann.
Kenosha	21,371	Mrs. Mary D. Bradford.
La Crosse	30,417	B. E. McCormick.
Lake Geneva	3,079	J. M. Beck.
Madison	25,531	R. B. Dudgeon.
Manitowoc	13,027	P. J. Zimmers.
Marinette	14,610	G. H. Landgraf.
Marshfield	5,783	D. S. Miller.
Menasha	6,081	O. H. Plenzke.
Menomonie	5,036	E. W. Waite.
Merrill	8,089	H. W. Kircher.
Milwaukee	373,857	Milton C. Potter.
Mineral Point	2,925	W. R. Rood.
Monroe	4,410	Paul F. Neverman.
Neenah	5,734	C. F. Hedges.
New London	3,383	W. S. Ford.
Oconomowoc	3,054	Fred J. Holt.
Oconto	5,629	E. F. Strong.
Oshkosh	33,062	M. N. MacIver.
Platteville	4,452	F. V. Powell.
Plymouth	3,094	C. A. Rubado.
Portage	5,440	C. C. Bishop.
Port Washington: District No. 1. / District No. 4.	3,792	Joseph E. Barber. / Earl Wiesler.
Prairie du Chien	3,149	Nicholas Gunderson.
Racine	38,002	F. M. Longanecker.
Reedsburg	2,615	A. B. Olson.
Rhinelander	5,637	W. P. Colburn.
Rice Lake	3,968	Henry J. Steeps.
Richland Center	2,652	John P. Ballantyne.
Ripon	3,739	L. P. Goodrich.
Shawano	2,923	Fred G. Bishop.
Sheboygan	26,398	W. P. Roseman.
South Milwaukee	6,092	Fred W. Hein.
Sparta	3,973	Frank C. Bray.
Stanley	2,675	W. I. White.
Stevens Point	8,962	H. C. Snyder.
Stoughton	4,761	C. J. Anderson.
Sturgeon Bay	4,262	R. Soukup.
Superior	40,384	J. G. Moore.
Tomah	3,419	F. M. Bray.
Tomahawk	2,907	Harmon F. Schell.
Two Rivers	4,850	Wm. T. Darling.
Washburn	3,830	C. E. Hulten.
Watertown	8,829	Thomas J. Berto.
Waukesha	8,740	J. R. Williams.
Waupaca	2,789	F. G. Schneller.
Waupun	3,362	Larue F. Smith.
Wausau	16,560	Silas B. Tobey.
Wauwatosa	3,346	Philip A. Kolb.
West Allis	6,645	T. J. Jones.
Whitewater	3,224	C. W. Rittenburg.
WYOMING.		
Casper	2,639	George Wilder.
Cheyenne	11,320	Ira B. Fee.
Evanston	2,583	C. C. Voeller.
Laramie	8,237	C. E. Eddleblutte.
Rawlins	4,256	C. L. Martin.
Rock Springs	5,778	O. F. Munson.
Sheridan	8,408	J. J. Early.

XIV.—Assistant and District Superintendents of Schools in Cities of Over 25,000 Population.

[Assistant superintendents, unless otherwise specified.]

City.	Assistant superintendents and name or number of the district or division over which they have charge.
Birmingham, Ala	C. B. Glenn
Mobile, Ala	C. F. Vigor.
Berkeley, Cal	M. C. James.
Los Angeles, Cal	J. B. Monlux, deputy.
	M. C. Bettinger.
	Susan M. Dorsey.
Oakland, Cal	L. B. Avery.
	E. Morris Cox.
Sacramento, Cal	Mrs. M. R. O'Neil.
San Francisco, Cal	R. H. Webster.
	Wm. B. Howard.
	Archibald J. Cloud.
	Wm. H. De Bell.
	Mary Magner.
San Jose, Cal	Anne Darling.
Denver, Colo	Wm. H. Smiley.
Bridgeport, Conn	E. E. Cortright.
New Britain, Conn	Ella A. Fallon.
New Haven, Conn	J. C. Knowlton.
	C. C. Russell.
	J. C. McCarthy.
Wilmington, Del	Bessie Devine.
Washington, D. C	Stephen E. Kramer.
	R. C. Bruce.
Atlanta, Ga	Chas. S. Culver.
Augusta, Ga	T. H. Garrett.
Savannah, Ga	F. H. Ferguson.
Bloomington, Ill	Mary A. Kromer.

XIV.—Assistant and District Superintendents of Schools in Cities of Over 25,000 Population—Continued.

[Assistant superintendents, unless otherwise specified.]

City.	Assistant superintendents, and name or number of the district or division over which they have charge.
Chicago, Ill.	Samuel B. Allison. Ernest E. Cole. William M. Roberts. District superintendents: Ella C. Sullivan, District No. 1. Rufus M. Hitch, District No. 2. Charles D. Lowry, District No. 3. Elizabeth W. Murphy, District No. 4. Henry G. Clark, District No. 5. John H. Stube, District No. 6. Frederick M. Sisson, District No. 7. Minnie R. Cowen, District No. 8. ——— District No. 9. Martha V. Bishop, District No. 10.
Decatur, Ill.	Katherine Hamilton.
Elgin, Ill.	Jennie E. Tazewell.
Evanston, Ill.:	
District No. 75.	Frances C. Robertson.
District No. 76.	B. H. Corzine.
Joliet, Ill.	J. F. Skeel.
Evansville, Ind.	Bell Caffee.
Indianapolis, Ind.	A. S. Hurrell. Laura Frazee.
Terre Haute, Ind.	J. M. Tilley.
Davenport, Iowa.	Abigail O. Sheriff.
Des Moines, Iowa.	J. W. Studebaker.
Sioux City, Iowa.	R. L. Hamilton.
Louisville, Ky.	District superintendents: Ida Rudolph. Miss M. Semonin. Marian Curry. C. E. Ackley. B. W. Hartley.
New Orleans, La.	Nicholas Bauer. Paul B. Habans.
Shreveport, La.	A. J. Caldwell.
Portland, Me.	Helen M. Robinson, deputy.
Baltimore, Md.	Charles A. A. J. Miller. Robert W. Elliott. Rowland Watts. Andrew J. Pietsch. Joseph C. Hands. John A. Korff.
Boston, Mass.	Mary C. Mellyn. J. E. Burke. A. L. Rafter. F. W. Ballou.
Cambridge, Mass.	C. M. Herlihy.
Everett, Mass.	Abbie A. Smith.
Fall River, Mass.	Mary A. Mugan.
Holyoke, Mass.	Jennie F. Scolley.
Lawrence, Mass.	Leila M. Lamprey.
Lynn, Mass.	Wilmer Kinnan.
New Bedford, Mass.	Josephine Stuart.
Newton, Mass.	Mabel C. Bragg.
Springfield, Mass.	Bertha McConkey.
Worcester, Mass.	John F. Gannon. Alice Louise Harris. Walter S. Young.
Battle Creek, Mich.	Dessalee R. Dudley
Detroit, Mich.	Frank Cody. O. G. Frederick. Chas. L. Spain.
Grand Rapids, Mich.	Mrs. T. Townsend.
Jackson, Mich.	G. L. McCulloch.
Minneapolis, Minn.	W. F. Webster. Elizabeth Hall.
St. Paul, Minn.	Flora E. Pope. H. M. Eustace. L. L. Everly. Jennie R. Faddis.
Kansas City, Mo.	Katherine Hamilton.
St. Joseph, Mo.	J. H. Markley.
St. Louis, Mo.	Chas. F. Alt. C. G. Rathmann. W. J. S. Bryan. Geo. Platt Knox.
Butte, Mont.	Henry J. Gerling.
Omaha, Nebr.	Elga Shearer.
Hoboken, N. J.	Belle M. Ryan.
Jersey City, N. J.	J. F. Brandt.
Newark, N. J.	E. A. Murphy. J. Wilmer Kennedy.
Passaic, N. J.	E. K. Sexton. C. I. Shirley.
West Hoboken, N. J.	Abbie L. Day.
Mount Vernon, N. Y.	Elliott J. Tomlinson.
New Rochelle, N. Y.	Ida E. Roger.
New York, N. Y.	Mary R. Chamberlin. Associate superintendents: Andrew W. Edson. William McAndrew. Clarence E. Meleney. Edward B. Shallow. Gustave Straubenmuller. John L. Tildsley. Wm. J. O'Shea.
Rochester, N. Y.	Alfred P. Fletcher.
Yonkers, N. Y.	Thos. P. O'Hern. L. F. Hodge.
Charlotte, N. C.	Bertha Smith.
Cincinnati, Ohio.	Alexander Graham. E. D. Roberts.
Cleveland, Ohio.	Anna F. Logan. R. S. Jones.[1] A. C. Eldridge. F. E. Clerk. Catherine T. Bryce. E. A. Peterson.
Columbus, Ohio.	A. W. Castle.
Toledo, Ohio.	C. H. Fullerton.
Portland, Oreg.	H. S. Hutchins. E. H. Whitney. Charles A. Rice.
Easton, Pa.	A. J. La Barre.
Johnstown, Pa.	Arthur F. Payne.[2]
Philadelphia, Pa.	Associate superintendents: George Wheeler. Oliver P. Cornman. Albert H. Raub. Louis Nusbaum. Theo. L. MacDowell. District superintendents: Charles A. Coulomb, District No. 1. John Christopher, District No. 2. William W. Brown, District No. 3. John L. Shroy, District No. 4. M. C. Cooper, District No. 5. Charles H. Brelsford, District No. 6. Armand J. Gerson, District No. 7. H. White, District No. 8. S. L. Chew, District No. 9.

[1] Deputy superintendent.

[2] Associate superintendent.

XIV.—Assistant and District Superintendents of Schools in Cities of Over 25,000 Population—Continued.

[Assistant superintendents, unless otherwise specified.]

City.	Assistant superintendents, and name or number of the district or division over which they have charge.
Pittsburgh, Pa.	Associate superintendents: R. M. Sherrard, East End District. S. S. Baker, South Side District. C. H. Garwood, North Side District.
Reading, Pa.	Amanda E. Stout.
	D. E. Crosley.
Shenandoah, Pa.	Katherine McHale.
Providence, R. I.	Wm. H. Eddy.
	Clara M. Polk.
	Ella L. Sweeney.
El Paso, Tex.	R. R. Jones.
Fort Worth, Tex.	E. E. Edwards.
Salt Lake City, Utah	G. H. Child.
Lynchburg, Va.	Lucy L. Davis.
Richmond, Va.	A. H. Hill.
	J. H. Binford.
Seattle, Wash.	Frank E. Willard.
	T. R. Cole.
	Almina George.
Tacoma, Wash.	W. Q. Osburn.
Madison, Wis.	Mary A. O'Keefe.
Milwaukee, Wis.	A. E. Kagel.
	Frank Kroening.
	Leo Stern.
Sheboygan, Wis.	Addie Libert.
Superior, Wis.	Enid Dolan.

XV.—Business Managers in Cities of Over 25,000 Population.

City.	Business manager.
Mobile, Ala.	Richard Hines, jr.[1]
Little Rock, Ark.	D. R. Fones.
Los Angeles, Cal.	W. E. Record.
Oakland, Cal.	D. W. Pratt.
Pasadena, Cal.	N. G. Felker.
San Diego, Cal.	S. W. Belding.[1]
Colorado Springs, Colo.	T. J. Fox.[1]
Denver, Colo.	Harry V. Kepner.
Bridgeport, Conn.	John B. Wynkoop.
New Haven, Conn.	George T. Hewlett.
Wilmington, Del.	Harry J. Guthrie.[1]
Atlanta, Ga.	L. M. Landrum.
Bloomington, Ill.	Horatio G. Bent.
Chicago, Ill.	Percy B. Coffin.
Decatur, Ill.	Arthur Kinkade.
Evanston (district No. 75), Ill.	Frances C. Robertson.[1]
Peoria, Ill.	M. X. Chuse.
Quincy, Ill.	C. L. Sears.
Evansville, Ind.	Arthur L. Fisher.
Indianapolis, Ind.	George C. Hitt.
South Bend, Ind.	E. I. Kizer.
Terre Haute, Ind.	J. G. Cullings.
Cedar Rapids, Iowa.	J. A. Motejl.[1]
Clinton, Iowa.	A. H. Paddock.
Davenport, Iowa.	J. D. McCollister.
Des Moines, Iowa.	A. L. Clinite.
Dubuque, Iowa.	Leo Palen.
Waterloo (West), Iowa.	J. E. Dempster.
Kansas City, Kans.	E. L. Dennis.
Topeka, Kans.	M. C. Holman.
Wichita, Kans.	J. L. Leland.
Covington, Ky.	W. A. Shore.
Lexington, Ky.	J. O. H. Simrall.
Louisville, Ky.	J. Earl Henry.
Newport, Ky.	Emil Gerhardt.
Shreveport, La.	C. E. Byrd.
Baltimore, Md.	John H. Roche.
Boston, Mass.	William T. Keough.
Cambridge, Mass.	C. J. Church.
Fall River, Mass.	Alfred R. Langlais.
Fitchburg, Mass.	N. C. Upham.
Lowell, Mass.	Henry L. Williams.
Lynn, Mass.	John C. S. Andrew.[1]
Newton, Mass.	Celia M. Chase.[1]
Salem, Mass.	W. W. Andrew.[1]
Springfield, Mass.	Fred L. Ward.
Worcester, Mass.	Joseph Beals.
Battle Creek, Mich.	James Chisholm.[2]
Bay City, Mich.	Frank F. Price.
Calumet, Mich.	Joseph Roberts.
Detroit, Mich.	Charles A. Gadd.
Flint, Mich.	H. L. Hills.
Grand Rapids, Mich.	H. N. Morrill.
Jackson, Mich.	J. F. Forward.
Kalamazoo, Mich.	H. W. Anderson.
Lansing, Mich.	Sylva H. Hunter.
Saginaw, Mich.: East Side	Wm. C. Klumpp.
Saginaw, Mich.: West Side	Chas. A. Khuen.
Minneapolis, Minn.	Geo. F. Womrath.
St. Paul, Minn.	Albert Wunderlick.[3]
Kansas City, Mo.	J. B. Jackson.[1]
St. Joseph, Mo.	A. L. Loring.
St. Louis, Mo.	E. M. Brown.[4] / R. M. Milligan.[5]
Springfield, Mo.	E. J. Hoffman.[1]
Butte, Mont.	J. Emory Rheim.
Lincoln, Nebr.	J. G. Ludlam.[1]
Omaha, Nebr.	W. T. Bourke.[1]
Atlantic City, N. J.	H. H. Young.[1]
Bayonne, N. J.	J. D. Boyd.
Camden, N. J.	J. W. F. Bleakly.[1]
East Orange, N. J.	W. A. Clapp.
Elizabeth, N. J.	Thos. F. Mackessy.
Hoboken, N. J.	R. A. Marnell.
Orange, N. J.	W. G. McCurdy.
Passaic, N. J.	John F. Kelly.
Paterson, N. J.	Jas. F. Dunphey.[1]
Trenton, N. J.	Wm. A. Poland.
Mount Vernon, N. Y.	E. Q. Bienvenu.
Schenectady, N. Y.	Clarence Ogsbury.
Troy, N. Y.: Union District	Wm. A. Dunn.
Troy, N. Y.: Lansingburgh District.	Geo. H. Bradshaw.
Charlotte, N. C.	D. M. Abernethy.
Wilmington, N. C.	Chas. B. Newcomb.
Canton, Ohio.	P. H. Weber.
Cincinnati, Ohio.	Chas. W. Handman.
Cleveland, Ohio.	Frank G. Hogen.
Columbus, Ohio.	Edw. B. MacFadden.
Dayton, Ohio.	C. J. Schmidt.
Lorain, Ohio.	E. Bruell.

[1] Secretary.
[2] Purchasing agent.
[3] Commissioner of education.
[4] Supply commissioner.
[5] Commissioner of school buildings.

XV.—Business Managers in Cities of Over 25,000 Population—Continued.

City.	Business manager.	City.	Business manager.
Springfield, Ohio	W. H. Thomas.	Chattanooga, Tenn.	H. D. Huffaker.[3]
Toledo, Ohio	Edwin M. Gee.	Memphis, Tenn	G. W. Garner.
Youngstown, Ohio.	S. R. Creps.	Nashville, Tenn	H. S. Van Deren.
Muskogee, Okla.	Fred V. Maddin.	Dallas, Tex	I. G. Etheridge.
Oklahoma, Okla	H. M. Fairey.	El Paso, Tex	C. M. Clark.
Portland, Oreg	R. H. Thomas.	Galveston, Tex	Edwin Bruce.
Altoona, Pa	C. M. Peifer.	Houston, Tex	W. Peine.
Easton, Pa	Raymond E. Peifer.	San Antonio, Tex	Paul H. Scholz.
Erie, Pa	R. S. Scobell.	Waco, Tex	E. H. Vaden.
Harrisburg, Pa	D. D. Hammelbaugh.	Ogden, Utah	Bessie McCready.
Hazleton, Pa	D. T. Evans.[1]	Salt Lake City, Utah.	L. P. Judd.
Johnstown, Pa	Chas. H. Meyer.	Richmond, Va	C. P. Walford.
McKeesport, Pa	W. T. Norton.	Seattle, Wash	Wylie Hemphill.
New Castle, Pa	Hugh M. Marquis.	Tacoma, Wash	Alfred Lister.
Philadelphia, Pa	William Dick.	Huntington, W. Va	W. H. Lyons.
Pittsburgh, Pa	Geo. W. Gerwig.[1]	Wheeling, W. Va	Frank Stanton.[1]
Reading, Pa	Robt. E. Richardson.	Milwaukee, Wis	Frank M. Harbach.
Scranton, Pa	George E. Haak.	Oshkosh, Wis	Walter Meyer.
York, Pa	David N. Crider.[1]	Racine, Wis	Joseph J. Moritz.
Providence, R. I	H. S. Dorchester.[2]	Superior, Wis	L. A. Nichols.
Charleston, S. C			

[1] Secretary. [2] Purchasing agent. [3] Commissioner of education.

XVI.—Chief Medical Inspectors or School Health Officers in Cities of Over 25,000 Population.

City.	Chief medical inspector or school health officer.	City.	Chief medical inspector or school health officer.
Birmingham, Ala	Dr. J. S. McLester.	Joliet, Ill	Mary Ellen Kershaw.[2]
Mobile, Ala	Dr. Toulmin Gaines.	Peoria, Ill	Mary R. Youngreen.[2]
Montgomery, Ala	Dr. Gibson Reynolds.		Dr. F. M. Meixner.
Little Rock, Ark	Dr. Ida J. Brooks.	Rockford, Ill	Dr. D. W. Day.
Berkeley, Cal	Dr. J. J. Benton.[1]	Springfield, Ill	Mary J. Heitman.[2]
Los Angeles, Cal	I. R. Bancroft.		Lena Boswell.[2]
Oakland, Cal	Dr. Margaret Wythe.	Evansville, Ind	Dr. W. R. Cleveland.
Pasadena, Cal	Dr. R. C. Olmsted.	Fort Wayne, Ind	Dr. Chas. R. Dancer.
Sacramento, Cal	Dr. G. C. Simmons.	Indianapolis, Ind	Dr. H. G. Morgan.
San Diego, Cal		South Bend, Ind	Dr. E. G. Freyermuth.
San Francisco, Cal.	Dr. T. D. Maher.	Terre Haute, Ind	Dr. L. B. Miller.
San Jose, Cal	Dr. N. H. Bullock.	Cedar Rapids, Iowa	Dr. David E. Beardsley
Colorado Springs, Colo.	Dr. O. R. Gillett.	Clinton, Iowa	Dr. H. R. Sugg.
Pueblo, Colo.:		Council Bluffs, Iowa.	Dr. V. L. Treynor.
District No. 1	Maude Rose.[2]	Davenport, Iowa	Dr. James Dunn.
District No. 20.	Elizabeth Hopkins.[2]	Des Moines, Iowa	Dr. Fred Moore.
Bridgeport, Conn	Dr. Walter H. Brown.	Dubuque, Iowa	Maud Reeder.
Hartford, Conn	Dr. F. P. Botsford.	Sioux City, Iowa	Anna Fobes.
Meriden, Conn	Dr. J. A. Cook.	Waterloo, Iowa:	
New Britain, Conn.	Dr. E. J. Dray.	East Side	Dr. E. F. Stevenson.
	Dr. Frank Zwick.	West Side	Dr. Waterbury.
New Haven, Conn	Dr. F. W. Wright.	Kansas City, Kans.	Dr. C. W. McLaughlin.
New Haven (Westville district), Conn.	Dr. Marsh.	Topeka, Kans	Mrs. Mary Grover.
		Wichita, Kans	Genevieve Lill.
Norwich, Conn	Dr. Louis Cassidy.	Covington, Ky	Dr. R. J. Ertel.
Stamford, Conn	Dr. I. F. Carroll.	Lexington, Ky	Dr. John D. Maguire.
	Dr. R. G. Phillip.	Louisville, Ky	Dr. T. W. Baker.
Waterbury, Conn	Dr. C. W. S. Frost.	Newport, Ky	Dr. C. E. Wamsley.
Washington, D. C	Dr. J. A. Murphy.		Dr. Edward North.
Jacksonville, Fla	Dr. Wm. W. MacDonnell.[1]	New Orleans, La	Dr. Edmund Moss.
Tampa, Fla	Dr. H. O. Snow.	Shreveport, La	Dr. A. P. Crain.
Atlanta, Ga	Dr. J. P. Kennedy.	Baltimore, Md	Dr. John D. Blake.
Augusta, Ga	Dr. A. A. Davidson.	Boston, Mass	Dr. William H. Devine.
Macon, Ga	Dr. C. H. Richardson	Brockton, Mass	A. L. Beals.
Aurora (East side), Ill.	Rose Krug.		W. E. Caswell.
Bloomington, Ill	Dr. Godfrey.		W. W. Fullerton.
	Dr. Griffin.		G. A. Buckley.
	Dr. Vanderwort.	Brookline, Mass	Dr. R. W. Hastings.
Chicago, Ill	Dr. J. D. Robertson.	Cambridge, Mass	(3).
Danville, Ill	Pearl Stanton.	Chelsea, Mass	Dr. Wm. J. Randall.
Elgin, Ill	Frances Teal.	Chicopee, Mass	Dr. Charles O'Brien.
Evanston, Ill:		Everett, Mass	Dr. W. L. Howe.
District No. 75.	Dr. Mary Brooks Baird.	Fall River, Mass	Dr. Samuel B. Morriss.
District No 76.	Dr Mary Mars.	Fitchburg, Mass	Dr. Wm. Thompson.
		Haverhill, Mass	Dr. J. J. Fitzgerald.
		Holyoke, Mass	Dr. Harold E. Miner.

[1] City health officer. [2] School nurse. [3] City board of health has charge.

XVI.—Chief Medical Inspectors or School Health Officers in Cities of Over 25,000 Population—Continued.

City.	Chief medical inspector or school health officer.
Lawrence, Mass.	(1).
Lowell, Mass.	(2).
Lynn, Mass.	Dr. M. R. Donovan.
Malden, Mass.	Dr. W. W. Lougee.
New Bedford, Mass.	W. G. Kirschbaum.
Newton, Mass.	Dr. Francis G. Curtis.
Pittsfield, Mass.	Dr. E. H. Howard.
Quincy, Mass.	Dr. Wm. McCausland.
Salem, Mass.	Dr. G. E. Tucker.
Somerville, Mass.	Dr. C. C. Towle.
Springfield, Mass.	Dr. E. H. Guild.
Taunton, Mass.	Dr. F. A. Murphy.
Worcester, Mass.	Dr. E. H. Trowbridge.
Battle Creek, Mich.	Elizabeth Martin.[3]
Bay City, Mich.	Dr. Mary Williams.
Detroit, Mich.	Dr. James W. Inches.[4]
Flint, Mich.	Dr. W. De Kleine.
Grand Rapids, Mich.	Dr. C. C. Siemons.[4]
Jackson, Mich.	Dr. Corwin S. Clarke.
Kalamazoo, Mich.	F. Elizabeth Barrett.
Lansing, Mich.	Ina M. Taylor.[3]
Saginaw, Mich.:	
East Side	Dr. Edith Hunsberger.
West Side	Dr. J. H. Powers.
Duluth, Minn.	Dr. C. H. Schroeder.
Minneapolis, Minn.	
St. Paul, Minn.	Dr. E. A. Meyerding.
Kansas City, Mo.	Dr. E. H. Bullock.
St. Joseph, Mo.	Dr. H. De Lamotte.
St. Louis, Mo.	Dr. James Stewart.
Springfield, Mo.	Dora Lacy.[3]
Butte, Mont.	Catherine Combs.[3] Margaret Regan.[3]
Lincoln, Nebr.	Dr. Katherine H. K. Wolfe.
Omaha, Nebr.	Dr. E. T. Manning.
Manchester, N. H.	Dr. F. P. Scribner.
Nashua, N. H.	Dr. Mary A. Sweeney.
Atlantic City, N. J.	Dr. H. T. Harvey.
Bayonne, N. J.	Dr. Frederick Gray.
Camden, N. J.	Dr. Henry H. Davis.
East Orange, N. J.	Dr. W. L. Harrington. Dr. Emma O. Gantz.
Elizabeth, N. J.	Dr. Jacob Reiner.
Hoboken, N. J.	Dr. Joseph F. Londrigan.
Jersey City, N. J.	Dr. H. H. Brinkerhoff.
Newark, N. J.	Dr. Geo. J. Holmes.
Orange, N. J.	Dr. Ella A. Coughlan.
Paterson, N. J.	Dr. Walter L. Dunning.
Perth Amboy, N. J.	Dr. Wm. H. McCormick.
Trenton, N. J.	(2)
West Hoboken, N. J.	Dr. Wm. A. Draesel.
Albany, N. Y.	Dr. Clinton P. McCord.
Amsterdam, N. Y.	Dr. Julius Schiller.
Auburn, N. Y.	Dr. L. Belle Richens.
Binghamton, N. Y.	Dr. Edith M. Walker.
Buffalo, N. Y.	Dr. Francis E. Fronczak.
Elmira, N. Y.	Dr. John A. Bennett. Dr. H. W. Fudge.
Jamestown, N. Y.	Dr. F. C. Purcell. Dr. Wm. M. Sill.
Kingston, N. Y.	Dr. Henry Van Holvenberg.
Mount Vernon, N. Y.	Dr. F. A. M. Bryant.
Newburgh, N. Y.	Dr. Emanuel L. Falk.
New Rochelle, N. Y.	Dr. Carol T. Stevens.
New York, N. Y.	(1)
Niagara Falls, N. Y.	Dr. Walter A. Scott.
Poughkeepsie, N. Y.	Dr. C. A. Crispell.
Rochester, N. Y.	Dr. George Goler.
Schenectady, N. Y.	Dr. John E. Burke.
Syracuse, N. Y.	Dr. Joseph C. Palmer.
Troy, N. Y.:	
Lansingburgh District.	Dr. Charles B. Sprague.
Union District.	Dr. M. D. Dickinson.
Utica, N. Y.	Dr. J. W. Fleming.
Watertown, N. Y.	Dr. A. H. Allen.
Yonkers, N. Y.	Dr. Philip S. McCormick.
Charlotte, N. C.	Dr. C. C. Hudson.
Wilmington, N. C.	Dr. C. E. Low.
Akron, Ohio	Dr. T. C. Nisbett.
Canton, Ohio	Dr. I. B. Smock.
Cincinnati, Ohio	Dr. Wm. H. Peters.
Cleveland, Ohio	Dr. E. A. Peterson.
Columbus, Ohio	Dr. C. P. Linhart.
Dayton, Ohio	Dr. Louis F. Bucher.
Hamilton, Ohio	Dr. A. L. Smedley.
Lorain, Ohio	Dr. C. R. Meek.
Newark, Ohio	Dr. W. H. Knauss.
Springfield, Ohio	Dr. E. B. Starr.
Toledo, Ohio	Dr. Ralph Stewart.
Youngstown, Ohio	Dr. H. E. Welch.
Zanesville, Ohio	Dr. G. W. McCormick.
Muskogee, Okla.	Dr. Emma S. Keith.
Oklahoma, Okla.	Dr. H. H. Cloudman.
Portland, Oreg.	(1)
Allentown, Pa.	Dr. Thomas Weaber.
Altoona, Pa.	Dr. L. E. McKee. Dr. Sarah M. Davies.
Easton, Pa.	Mary Foore.
Erie, Pa.	Dr. H. R. Steadman.
Harrisburg, Pa.	Dr. Chas. S. Rebuck.
Johnstown, Pa.	Dr. J. W. Bancroft.
Lancaster, Pa.	Dr. W. D. Blankenship. Dr. C. H. Witmer.
McKeesport, Pa.	Dr. R. L. Steele.
New Castle, Pa.	Dr. V. C. Wagner.
Norristown, Pa.	Dr. A. R. Garner. Dr. A. H. Read. Dr. W. R. Roberts.
Philadelphia, Pa.	Dr. Bernard Kohn.
Pittsburgh, Pa.	Dr. Harry B. Burns.[5]
Reading, Pa.	Dr. Hiester Bucher.
Scranton, Pa.	Dr. W. E. Keller.
Shenandoah, Pa.	Dr. J. S. Monahan.
Wilkes-Barre, Pa.	Dr. Chas. B. Lewis.
Williamsport, Pa.	Dr. F. W. Kunkle.
Newport, R. I.	(1)
Pawtucket, R. I.	Dr. Charles H. French.
Providence, R. I.	Dr. C. S. Chapin.
Warwick, R. I.	Dr. C. J. Astle.
Woonsocket, R. I.	Dr. W. F. Barry.
Columbia, S. C.	Dr. Edythe Welbourne.
Chattanooga, Tenn.	Dr. E. B. Wise.
Nashville, Tenn.	Dr. E. L. Roberts.
Austin, Tex.	Mrs. N. B. Scott.[3]
El Paso, Tex.	Dr. Hugh White.
Galveston, Tex.	Dr. C. T. Stone.
Houston, Tex.	Dr. F. J. Slataper.
Waco, Tex.	Dr. J. R. Ferrell.
Ogden, Utah	Mary A. Williams.
Salt Lake City, Utah.	Dr. S. G. Paul.
Lynchburg, Va.	Dr. Mosby G. Perrow.
Norfolk, Va.	Dr. J. L. Stringfellow.
Portsmouth, Va.	Dr. E. A. Hatton.
Richmond, Va.	Dr. N. T. Ennett.
Roanoke, Va.	Dr. W. W. S. Butler.
Seattle, Wash.	Dr. Ira C. Brown.
Spokane, Wash.	Dr. J. E. Drake.
Tacoma, Wash.	Dr. E. A. Layton.
Huntington, W. Va.	Dr. E. R. Rader.
Wheeling, W. Va.	Dr. C. H. Keesor.
La Crosse, Wis.	Dr. J. M. Furstman.
Madison, Wis.	Dr. W. W. Stebbins.
Milwaukee, Wis.	Dr. G. P. Barth.
Oshkosh, Wis.	Dr. A. H. Broche.
Racine, Wis.	H. C. Baker.
Superior, Wis.	Dr. H. A. Russell.

1 City board of health has charge.
2 Nine school physicians.
3 School nurse.
4 City health officer.
5 City director of hygiene.

XVII.—Universities and Colleges—Presidents and Heads of Departments of Education.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
ALABAMA.				
Athens	Athens Female College	Women.	Benjamin B. Glasgow, D. D.	Jane E. B. Brown, A. M.
Auburn	Alabama Polytechnic Institute.	Coed.	Charles C. Thach, LL. D.	Zebulon V. Judd, A. M.
Birmingham	Birmingham-Southern College.	Coed.	Cullen C. Daniel, D. D.	W. R. Bourne, A. M.
Do	Howard College	Coed.	John C. Dawson, LL. D.	W. E. Bohannon, A. M.
Marion	Judson College	Women.	Paul V. Bomar, D. D.	Paul F. Keeton, A. M.
Montevallo	Alabama Girls Technical Institute.	Women.	Thomas W. Palmer, LL. D.	Mary M. Brooke, A. M.
Montgomery	Woman's College of Alabama.	Women.	Miffin W. Swartz, Ph. D.	Grace Lyman, A. M.
St. Bernard	St. Bernard College	Men.	Bernard Menges, O. S. B.	
Spring Hill	Spring Hill College	Men.	Edward Cummings, S. J.	
University	University of Alabama	Coed.	George H. Denny, LL. D.	James J. Doster, LL. D.
ARIZONA.				
Tucson	University of Arizona	Coed.	Rufus B. von Klein Smid, Sc. D.	Herbert H. Foster, Ph. D.
ARKANSAS.				
Arkadelphia	Henderson-Brown College.	Coed.	James M. Workman, LL. D.	
Do	Ouachita College	Coed.	Charles E. Dicken, D. D.	Mrs. E. M. Blake, A. B.
Batesville	Arkansas College	Coed.	Wm. S. Lacy, A. B.	Sidney Pickens, A. B.
Clarksville	Arkansas Cumberland College.	Coed.	Hubert S. Lyle, D. D.	
Conway	Central College	Women.	John W. Conger, LL.D.	Doak S. Campbell, A. B.
Do	Hendrix College	Coed.	John H. Reynolds, LL.D.	
Fayetteville	University of Arkansas	Coed.	John C. Futrall, A. M.	James R. Jewell, Ph. D.
CALIFORNIA.				
Berkeley	University of California	Coed.	Benj. Ide Wheeler, LL. D.	Alexis F. Lange, Ph. D.
Claremont	Pomona College	Coed.	James A. Blaisdell, D. D.	Edwin C. Norton, Ph. D.
Los Angeles	Occidental College	Coed.	Silas Evans, LL. D.	George F. Cook, Ph. D.
Do	University of Southern California.	Coed.	George F. Bovard, LL. D.	Thomas B. Stowell, LL. D.
Mills College	Mills College	Women.	Aurelia H. Reinhardt, Ph. D.	Kate Brousseau, Ph. D.
Oakland	St. Mary's College	Men.	Brother Gregory	
Pasadena	Throop College of Technology.	Men.	James A. B. Scherer, LL. D.	
Redlands	University of Redlands	Coed.	Victor L. Duke, A. M.	Herbert E. Wise, A. M.
St. Helena	Pacific Union College	Coed.	Charles W. Irwin, A.M.	Wm. G. Wirth, A. B.
San Francisco	St. Ignatius University	Men.	Patrick J. Foote, D. D.	James Hayes, S. J.
San Jose	College of the Pacific	Coed.	John L. Seaton, Ph. D.	J. William Harris, Ph. D.
Santa Clara	University of Santa Clara	Men.	Walter Thornton, S. J.	Cornelius Buckley, S. J.
Stanford University.	Leland Stanford Junior University.	Coed.	Ray L. Wilbur, A. M.	Ellwood P. Cubberley, Ph. D.
Whittier	Whittier College	Coed.	Harry N. Wright, Ph. D.	Mrs. A. Rosenberger, A. B.
COLORADO.				
Boulder	University of Colorado	Coed.	Livingston Farrand, LL. D.	Frank E. Thompson, A. B.
Colorado Springs	Colorado College	Coed.	Clyde A. Duniway, LL. D.	J. V. Breitwieser, Ph. D.
Denver	College of the Sacred Heart.	Men.	J. J. Brown, S. J.	
Fort Collins	Colorado Agricultural College.	Coed.	Chas. A. Lory, LL. D.	
Golden	Colorado School of Mines	Men.	Victor C. Alderson, LL. D.	
Greeley	State Teachers College of Colorado.	Coed.	John G. Crabbe, LL. D	T. C. McCracken, Ph D.
Montclair	Colorado Woman's College.	Women.	J. W. Bailey, Ph. D.	Jay P. Treat, A. M.
University Park	University of Denver	Coed.	Henry A. Buchtel, LL. D., chancellor.	Daniel E. Phillips, Litt. D.

XVII.—Universities and Colleges—Presidents and Heads of Departments of Education—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
CONNECTICUT.				
Hartford	Trinity College	Men	Flavel S. Luther, LL. D.	
Middletown	Wesleyan University	Men	William A. Shanklin, LL. D.	
New Haven	Yale University	Men	Arthur T. Hadley, LL. D.	Herbert Cameron, Ph. D.
New London	Connecticut College for Women.	Women.	Benjamin T. Marshall, A. M.	
Storrs	Connecticut Agricultural College.	Coed	Charles L. Beach, B.S.	Theodore H. Eaton, Ph. D.
DELAWARE.				
Newark	Delaware College	Coed	Samuel C. Mitchell, Ph. D.	George S. Counts, Ph. D.
DISTRICT OF COLUMBIA.				
Washington	American University	Coed	John W. Hamilton, L. H, D., chancellor.	
Do	Catholic University of America.	Men	Thomas J. Shahan, S. T. D., rector.	Thomas E. Shields, Ph. D.
Do	Gallaudet College	Coed	Percival Hall, M. A.	
Do	Georgetown University	Men	John B. Creeden, Ph. D.	
Do	George Washington University.	Coed	Wm. M. Collier, LL.D.	William C. Ruediger, Ph. D.
Do	Howard University (colored).	Coed	J. Stanley Durkee, Ph. D.	Lewis B. Moore, Ph. D.
Do	St. John's College	Men	Brother Edward	
Do	Trinity College	Women.	Sister Catherine Aloysius, S. N. D.	
Do. (Takoma Park).	Washington Missionary College.	Coed	Benjamin F. Machlan, A. M.	
FLORIDA.				
Deland	John B. Stetson University.	Coed	Lincoln Hulley, LL.D.	Daniel J. Blocker, D. D.
Gainesville	University of Florida	Men	Albert A. Murphree, LL. D.	H. W. Cox, Ph. D.
Lake City	Columbia College	Coed	Andrew P. Montague, LL. D.	
Sutherland	Southern College	Coed	R. H. Alderman, A. B.	
Tallahassee	Florida State College for Women.	Women.	Edward Conradi, Ph. D.	Nathaniel M. Salley, A. B.
Winter Park	Rollins College	Coed	Calvin H. French, LL. D.	
GEORGIA.				
Athens	University of Georgia	Men	David C. Barrow, LL. D., chancellor.	Thomas J. Woofter, LL. D.
Atlanta	Atlanta University (colored).	Coed	Edward T. Ware, A.B.	George A. Towns, A. M.
Do	Georgia School of Technology.	Men	Kenneth G. Matheson, LL. D.	Emmett P. Tracy, C. E.
Do	Morehouse College (colored).	Men	John Hope, A. M.	
Do	Morris Brown University (colored).	Coed	William A. Fountain, D. D.	E. C. Mitchell, A. B.
College Park	Cox College	Women.	Wm. S. Cox, B. Arch.	E. C. James, Litt. D.
Dahlonega	North Georgia Agricultural College.	Coed	Gustavus R. Glenn, LL. D.	George W. Camp, A. M.
Decatur	Agnes Scott College	Women.	Frank H. Gaines, LL. D.	Sara P. White, Ph. D.
Demorest	Piedmont College	Coed	Frank E. Jenkins, D. D.	Carl C. Guise, A. M.
Forsyth	Bessie Tift College	Women.	Joshua H. Foster, D.D.	T. J. Simmons, LL. D.
Gainesville	Brenau College	Women.	Haywood J. Pearce, Ph. D.	
Lagrange	Lagrange Female College.	Women.	Daisey Davies	
Do	Southern Female College.	Women.	M. W. Hatton, A. M.	Roberta Black, A. M.
Macon	Mercer University	Men	Rufus W. Weaver, D.D.	Peyton Jacob, A. M.
Do	Wesleyan Female College.	Women.	C. R. Jenkins, D. D.	Lois Rogers, A. M.

XVII.—Universities and Colleges—Presidents and Heads of Departments of Education—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
GEORGIA—con.				
Oglethorpe University.	Oglethorpe University	Men	Thornwell Jacobs, LL. D.	
Oxford	Emory University	Men	James E. Dickey, D.D.	
Rome	Shorter College	Women.	A. W. Van Hoose	
South Atlanta	Clark University (colored).	Coed	Harry A. King, D. D.	Isaac H. Miller, A. B.
HAWAII.				
Honolulu	College of Hawaii	Coed	Arthur L. Dean, Ph.D.	
IDAHO.				
Caldwell	College of Idaho	Coed	William J. Boone, D. D.	Payne A. Boulton, A. M.
Moscow	University of Idaho	Coed	Ernest H. Lindley, Ph. D.	Philip Soulen, A. M.
ILLINOIS.				
Abingdon	Hedding College	Coed	Walter D. Agnew, D.D.	A. J. Bissinger, A. M.
Aurora	Aurora College	Coed	Orrin R. Jenks, A. B.	
Bloomington	Illinois Wesleyan University.	Coed	Theodore Kemp, LL. D.	John W. Henninger, B. S.
Bourbonnais	St. Viator College	Men	J. F. Ryan, C. S. V.	
Carthage	Carthage College	Coed	Harvey D. Hoover, Ph. D.	Letta Simmons, A. B.
Chicago	Armour Institute of Technology.	Men	Frank W. Gunsaulus, LL. D.	
Do	De Paul University	Coed	F. X. McCabe, LL. D.	
Do	Lewis Institute	Coed	George N. Carman, A. M., director.	
Do	Loyola University	Men	John B. Furay, S. J.	
Do	University of Chicago	Coed	Harry Pratt Judson, LL. D.	Charles H. Judd, LL. D.
Decatur	James Millikin University.	Coed	A. R. Taylor, LL. D.	L. B. Henderson, A. M.
Eureka	Eureka College	Coed	H. O. Pritchard, LL.D.	Silas Jones, A. M.
Evanston	Northwestern University.	Coed		Elmer E. Jones, Ph. D.
Ewing	Ewing College	Coed	H. M. Tipsword, Ph.D.	
Galesburg	Knox College	Coed	James L. McConaughy, Ph. D.	Wm. A. Raub, Ph. D.
Do	Lombard College	Coed	Joseph M. Tilden, LL. D.	Luther J. Pollard, A. M.
Greenville	Greenville College	Coed	Eldon Grant Burritt, A. M.	
Jacksonville	Illinois College	Coed	Charles H. Rammelkamp, Ph. D.	J. P. McCoy, A. M.
Do	Illinois Woman's College.	Women.	Joseph R. Harker, Ph. D.	Jeanette Benson, A. B.
Lake Forest	Lake Forest College	Coed	Henry W. Wright, Ph. D.	
Lebanon	McKendree College	Coed	E. P. Baker, A. M. acting.	W. C. Walton, Ph. D.
Lincoln	Lincoln College	Coed	M. R. Laird, Ph. D.	H. D. Rickert, A. B.
Monmouth	Monmouth College	Coed	Thos. H. McMichael, D. D.	Milton M. Maynard, A. B.
Naperville	Northwestern College	Coed	Edward E. Rall, Ph.D.	
Rockford	Rockford College	Women.	Julia H. Gulliver, LL. D.	Margaret O. Fitzhugh, A. M.
Rock Island	Augustana College	Coed	Gustav A. Andreen, D. D.	Axel R. Wallin, Ph. D.
Upper Alton	Shurtleff College	Coed	George M. Potter, A.M.	
Urbana	University of Illinois	Coed	Edmund J. James, LL. D.	W. W. Charters, Ph. D.
Wheaton	Wheaton College	Coed	Charles A. Blanchard, D. D.	Wm. F. Rice, A. M.
INDIANA.				
Bloomington	Indiana University	Coed	William L. Bryan, LL. D.	Henry L. Smith, Ph. D.
Crawfordsville	Wabash College	Men	Geo. Lewes Mackintosh, LL. D.	George H. Tapy, A. M.
Earlham	Earlham College	Coed	David M. Edwards, Ph. D.	Horace F. Martin, A. M.

XVII.—UNIVERSITIES AND COLLEGES—PRESIDENTS AND HEADS OF DEPARTMENTS OF EDUCATION—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
INDIANA—con.				
Franklin	Franklin College	Coed.	Charles E. Goodell, LL. D.	John L. Beyl, Ph. D.
Goshen	Goshen College	Coed.	George J. Lapp, A. B.	John J. Fisher, A. M.
Greencastle	De Pauw University	Coed.	Geo. R. Grose, LL. D.	John A. Clement, Ph. D.
Hanover	Hanover College	Coed.	William A. Millis, LL. D.	
Indianapolis	Butler College	Coed.	Thomas C. Howe, Ph. D.	Elijah Jordan, Ph. D.
Do	Indiana Central University.	Coed.	Irby J. Good, A. M.	H. W. Marshall, A. M.
La Fayette	Purdue University	Coed.	Winthrop E. Stone, LL. D.	George L. Roberts, A. M.
Merom	Union Christian College	Coed.	C. B. Hershey, D. D.	
Notre Dame	St. Mary's College and Academy.	Women.	Mother M. Pauline	
Do	University of Notre Dame.	Men.	John Cavanaugh, D. D.	
Oakland City	Oakland City College	Coed.	Wm. P. Dearing	
Terre Haute	Rose Polytechnic Institute.	Men.	Carl L. Mees, Ph. D.	
Upland	Taylor University	Coed.	Monroe Vayhinger, D. D.	I. B. Peavy, M. Pd.
Valparaiso	Valparaiso University	Coed.	Oliver P. Kinsey, A. M.	George W. Neet, Ped. D.
Vincennes	Vincennes University	Coed.	William Halnon, A. M.	Sara J. Morrissey, A. M.
IOWA.				
Ames	Iowa State College of Agriculture and Mechanic Arts.	Coed.	Raymond A. Pearson, LL. D.	Guy M. Wilson, A. M.
Cedar Falls	Iowa State Teachers College.	Coed.	Homer H. Seerley, LL. D.	G. W. Walters, M. S., acting.
Cedar Rapids	Coe College	Coed.	John A. Marquis, LL. D.	Alexander C. Robbie, A. M.
Clinton	Wartburg College	Men.	John Fritschel, A. M.	
Davenport	St. Ambrose College	Men.	Wm. L. Hannon, A. M.	
Decorah	Luther College	Men.	Christian K. Preus, A. B.	Oscar A. Tingelstad, A. M.
Des Moines	Des Moines College	Coed.	John A. Earl, D. D.	J. P. Stephenson, Ph. D.
Do	Drake University	Coed.	A. Holmes	Wm. F. Varr, A. M.
Dubuque	Dubuque College	Men.	John C. Stuart, S. T. L.	J. B. Herbers, A. M.
Dubuque	Dubuque College and Seminary.	Coed.	C. M. Steffens, D. D.	
Fairfield	Parsons College	Coed.	R. A. Montgomery, LL. D.	John E. Winter, A. M.
Fayette	Upper Iowa University	Coed.	Chauncey P. Colegrove, Sc. D.	Wm. C. Mongold, A. M.
Grinnell	Grinnell College	Coed.	John H. T. Main, LL. D.	L. D. Hartson, Ph. D.
Hopkinton	Lenox College	Coed.		Ely V. Laughlin, A. B.
Indianola	Simpson College	Coed.	James W. Campbell, Ph. D.	R. A. Cummins, Ph. D.
Iowa City	State University of Iowa	Coed.	Walter A. Jessup, Ph. D.	Wm. F. Russell, Ph. D.
Iowa Falls	Ellsworth College	Coed.	Ido F. Meyer, A. M.	Harold C. Bingham, A. M.
Mount Pleasant	Iowa Wesleyan College	Coed.	Edwin A. Schell, D. D.	Elmer E. Lymer, A. M.
Mount Vernon	Cornell College	Coed.	Charles W. Flint, LL. D.	John E. Stout, Ph. D.
Oskaloosa	Penn College	Coed.	Henry E. McGrew, D. D.	Ella H. Stokes, Ph. D.
Pella	Central University of Iowa.	Coed.	Milton J. Hoffman, A. M.	Frank M. Phillips, A. M.
Sioux City	Morningside College	Coed.	Alfred E. Craig, D. D.	E. A. Brown, A. M.
Storm Lake	Buena Vista College	Coed.	Stanton Olinger, Ph. D.	Mrs. F. W. Harrison, A. M.
Tabor	Tabor College	Coed.	Nelson Wehrhan, D. D.	C. W. Shroeder, A. M.
University Park.	Central Holiness University.	Coed.	J. L. Brasher, D. D.	Roy O. Brown, A. M.
KANSAS.				
Atchison	Midland College	Coed.	Rufus B. Peery, Ph. D.	Fred S. Sorrenson, A. M.
Do	St. Benedict's College	Men.	Innocent Wolf, D. D.	

XIIV.—Universities and Colleges—Presidents and Heads of Departments of Education—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
KANSAS—contd.				
Baldwin City	Baker University	Coed	Samuel A. Lough, Ph. D.	Lillian Scott, A. M.
Emporia	College of Emporia	Coed	Frederick W. Lewis, D. D.	Conrad Vandervelde, A. M.
Highland	Highland College	Coed	W. Gilbert James, Ph D.	
Kansas City	Kansas City University.	Coed	J. H. Lucas, LL. D., chancellor.	Wm. S. Reese, D. D.
Lawrence	University of Kansas	Coed	Frank Strong, LL. D.	F. J. Kelley, Ph. D.
Lindsborg	Bethany College	Coed	Ernst F. Pihlblad, D. D.	Anna A. Carlson.
McPherson	McPherson College	Coed	Daniel W. Kurtz, D. D.	Ammon Swope, A. M.
Manhattan	Kansas State Agricultural College.	Coed	Wm. M. Jardine, LL. D.	Edwin L. Holton, A. B.
Ottawa	Ottawa University	Coed	Silas E. Price, D. D.	Forrest A. Kingsbury, A. M.
St. Marys	St. Marys College	Men	Wm. J. Wallace, A. M.	
Salina	Kansas Wesleyan University.	Coed		Albert H. King, M. Ped.
Sterling	Cooper College	Coed	Ross T. Campbell, D. D.	Althea E. Montgomery, A. M.
Topeka	Washburn College	Coed	Parley P. Womer, Sc. D.	E. Leigh Mudge, Ph. D.
Wichita	Fairmount College	Coed	Walter H. Rollins, D. D.	W. G. Binnewies, A. M.
Do	Friends University	Coed	W. O. Mendenhall, Ph. D.	H. C. Fellows, Ph. D.
Winfield	Southwestern College	Coed	Frank E. Mossman, D. D.	O. B. Baldwin, A. M.
KENTUCKY.				
Berea	Berea College	Coed	Wm. G. Frost, D. D.	Cloyd N. McAllister, Ph. D.
Bowling Green	Ogden College	Men	Wm. M. Pearce, A. B.	
Danville	Central University of Kentucky.	Men	Wm. A. Ganfield, D. D.	Henry Meier, Ph. D.
Georgetown	Georgetown College	Coed	Maldon B. Adams, D. D.	A. L. Rhoton, A. M.
Hopkinsville	Bethel Female College	Women	Clara B. Thompson, A. B.	
Lexington	University of Kentucky.	Coed	Frank L. McVey, LL. D.	J. T. C. Noe, A. M.
Do	Transylvania College	Coed	Richard H. Crossfield, LL. D.	Wm. C. Bower, A. M.
Louisville	University of Louisville	Coed	John Patterson, LL. D., dean.	
Russellville	Bethel College	Men	Robert H. Tandy, D. D.	
St. Mary	St. Marys College	Men	Michael Jaglowicz, C. R.	
Winchester	Kentucky Wesleyan College	Coed	J. L. Clark, LL. D.	
LOUISIANA.				
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.	Coed	Thomas D. Boyd, LL. D.	Delmar T. Powers, A. M.
Clinton	Silliman Collegiate Institute.	Women	U. B. Currie	
Convent	Jefferson College	Men	R. H. Smith, S. M.	
New Orleans	H. Sophie Newcomb Memorial College.	Women	Brandt V. B. Dixon, LL. D.	John M. Fletcher, Ph. D.
Do	Loyola University	Men	Alphonsus E. Otis, S. J.	Michael J. Walsh, S. J.
Do	Tulane University of Louisiana.	Men	Albert B. Dinwiddie, LL. D.	
Pineville	Louisiana College	Coed	C. Cottingham, A. M.	
MAINE.				
Brunswick	Bowdoin College	Men	Kenneth C. M. Sills, LL. D.	
Lewiston	Bates College	Coed	George C. Chase, LL. D.	Robert A. F. McDonald, Ph. D.

XVII.—Universities and Colleges—Presidents and Heads of Departments of Education—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
MAINE—contd.				
Orono	University of Maine	Coed	Robert J. Aley, LL. D.	Wm. E. Fuller, A. M., Ph. D.
Van Buren	Van Buren College (St. Mary's).	Men	C. J. Barth	
Waterville	Colby College	Coed	Arthur J. Roberts, A. M.	
MARYLAND.				
Annapolis	St. John's College	Men	Thomas Fell, LL. D.	
Do	United States Naval Academy.	Men	Capt. Edward W. Eberle superintendent.	
Baltimore	Goucher College	Women.	Wm. W. Guth, Ph. D.	Agnes L. Rogers, Ph. D.
Do	Johns Hopkins University.	Coed	Frank J. Goodnow, LL. D.	Edward F. Buchner, Ph. D.
Do	Morgan College (colored)	Coed	John O. Spencer, Ph. D.	Wm. Pickens, Litt. D.
Do	Mount St. Joseph's College.	Men	Brother James, A. B.	
Do	Notre Dame College of Maryland.	Women.	Sister Mary Florentine	
Chestertown	Washington College	Coed		
College Park	Maryland State College of Agriculture.	Men	Alfred F. Woods, D. Agr.	H. F. Cotterman, A. M.
Ellicott City	Rock Hill College	Men	Brother Pius, A. B.	
Emmitsburg	Mount St. Mary's College.	Men	Bernard J. Bradley, LL. D.	
Frederick	Hood College	Women.	Joseph H. Apple, LL. D.	Benj. W. Daily, A. M.
Lutherville	Maryland College for Women.	Women.	Beekman O. Rouse, A. B.	
New Windsor	Blue Ridge College	Coed	F. F. Holsopple, L. H. D.	
Westminister	Western Maryland College.	Coed	Thomas H. Lewis, LL. D.	Walter F. Clayton, Ph. D.
MASSACHUSETTS.				
Amherst	Amherst College	Men	Alexander Meiklejohn, Ph. D.	
Do	Massachusetts Agricultural College.	Coed	Kenyon L. Butterfield, LL. D.	Wm. R. Hart, A. M.
Boston	Boston University	Coed	Lemuel H. Murlin, D. D.	Arthur H. Wilde, Ph. D.
Do	Simmons College	Women.	Henry Lefavour, LL. D.	Sarah L. Arnold, A. M.
Cambridge	Harvard University	Men	Abbott Lawrence Lowell, LL. D.	Henry W. Holmes, A. M.
Do	Massachusetts Institute of Technology.	Coed	Richard C. Maclaurin, LL. D.	
Do	Radcliffe College	Women.	Le Baron R. Briggs, LL. D.	Henry W. Holmes, A. M.
Chestnut Hill	Boston College	Men	Charles W. Lyons, S. J.	
Lowell	Lowell Textile School		Chas. H. Eames, B. S.	
Northampton	Smith College	Women.	William A. Neilson, LL. D.	Harvey G. Townsend, Ph. D.
Norton	Wheaton College	Women.	Samuel V. Cole, LL.D.	Walter O. McIntire, Ph. D.
South Hadley	Mount Holyoke College	Women.	Mary E. Woolley, LL. D.	Colin A. Scott, Ph. D.
Springfield	International Young Men's Christian Association College.	Men	Lawrence L. Doggett, D. D.	
Tufts College	Tufts College	Coed	Hermon C. Bumpus, LL. D.	Karl Schmidt, Ph. D.
Wellesley	Wellesley College	Women.	Ellen F. Pendleton, LL. D.	Arthur O. Norton, A. M.
Williamstown	Williams College	Men	Harry A. Garfield, LL. D.	
Worcester	Clark University	Men	G. Stanley Hall, LL. D.	Wm. H. Burnham, Ph. D.
Do	Clark College	Men	Edmund Clark Sanford, LL. D.	Ludwig R. Geissler, Ph. D.
Do	College of the Holy Cross.	Men	Joseph N. Dinand, S.J.	James A. Mullen, S. J.
Do	Worcester Polytechnic Institute.	Men	Ira N. Hollis, Sc. D.	

XVII.—UNIVERSITIES AND COLLEGES—PRESIDENTS AND HEADS OF DEPARTMENTS OF EDUCATION—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
MICHIGAN.				
Adrian	Adrian College	Coed.	Harlan L. Feeman, D. D.	O. R. Stilson, A. M.
Albion	Albion College	Coed.	Samuel Dickie, LL. D.	Delos Fall, LL. D.
Alma	Alma College	Coed.	Harry Means Crooks, A. B.	George B. Randels, Ph. D.
Ann Arbor	University of Michigan	Coed.	Harry B. Hutchins, LL. D.	Allen S. Whitney, A. B.
Berrien	Emmanuel Missionary College.	Coed.	Frederick Griggs.	
Detroit	University of Detroit	Men.	Wm. T. Doran, S. J.	Simon J. Nicolas, S. J.
East Lansing	Michigan Agricultural College.	Coed.	Frank S. Kedzie, Sc. D.	Walter H. French, M. S.
Hillsdale	Hillsdale College	Coed.	Joseph W. Mauck, LL. D.	W. H. Mack.
Holland	Hope College	Coed.	Edward D. Dimnent, A. M.	Carl J. Knock, Ph. D.
Houghton	Michigan College of Mines.	Men.	Fred W. McNair, Sc. D.	
Kalamazoo	Kalamazoo College	Coed.	Herbert L. Stetson, LL. D.	
Olivet	Olivet College	Coed.	Theodore H. Wilson, A. M.	Olga O. Latham, A. M.
MINNESOTA.				
Collegeville	St. John's University	Men.	Peter Engle, Ph. D.	Kilian Heid, A. M.
Minneapolis	Augsburg Seminary	Men.	George Sverdrup, M. A.	
Do	University of Minnesota.	Coed.	Marion Le Roy Burton, LL. D.	Lotus D. Coffman, Ph. D.
Northfield	Carleton College	Coed.	Donald J. Cowling, Ph. D.	Leal A. Headley, Ph. D.
Do	St. Olaf College	Coed.	L. W. Boe, A. B.	Julius Boraas, Ph. D.
St. Paul	College of St. Catherine	Women.	Sister Antonia, A. M.	Sister Ste. Helene, A. M.
Do	College of St. Thomas	Men.	Humphrey Moynihan, D. D.	Joseph A. Schabert, A. M.
Do	Hamline University	Coed.	Samuel F. Kerfoot, D. D.	George S. Innis, Ph. D.
Do	Macalester College	Coed.	Elmer A. Bess, D. D.	Andrew W. Anderson, A. M.
St. Peter	Gustavus Adolphus College.	Coed.	Oscar J. Johnson, B. D.	S. L. Reed, Ph. D.
Winona	College of St. Teresa	Women.	Mother M. Leo Tracy	Mary A. Molloy, Ph. D.
MISSISSIPPI.				
Agricultural College.	Mississippi Agricultural and Mechanical College.	Coed.	W. H. Smith	James V. Bowen, Ph. B.
Blue Mountain	Blue Mountain College	Women.	W. J. Lowrey, LL. D.	O. G. Davis, B. D.
Brookhaven	Whitworth Female College.	Women.	I. W. Cooper, D. D.	
Clinton	Mississippi College	Men.	John W. Provine, LL. D.	Wm. H. Weathersby, A. M.
Columbus	Mississippi Industrial Institute and College.	Women.	Henry L. Whitfield, LL. D.	Anne L. Fant, A. M.
Grenada	Grenada College	Women.	J. R. Countiss, A. B.	
Holly Springs	Rust College (colored)	Coed.	George Evans, D. D.	Emma H. Gifford, B. S.
Jackson	Belhaven College	Women.	W. H. Frazer, D. D.	Olive M. Jones, A. B.
Do	Millsaps College	Coed.	Alexander F. Watkins, D. D.	Stuart G. Noble, Ph. D.
Meridian	Meridian College	Coed.	J. W. Beeson, LL. D.	J. A. Smith, A. M.
University	University of Mississippi.	Coed.	Joseph N. Powers, LL. D., chancellor.	R. W. Rogers, A. M.
MISSOURI.				
Cameron	Missouri Wesleyan College.	Coed.	Cameron Harmon, D. D.	Emily Dexter, A. M.
Canton	Culver-Stockton College.	Coed.	John H. Wood, D. D.	George E. Breece, A. M.
Columbia	University of Missouri	Coed.	Albert Ross Hill, LL. D.	Jesse H. Coursault, Ph. D.
Fayette	Central College	Coed.	Paul H. Linn, D. D.	Roy C. Holl, A. B.
Fulton	Westminster College	Men.	E. E. Reed, D. D.	
Lexington	Central College for Women.	Women.	Z. M. Williams, D. D.	Nelle M. Ward, A. M.
Liberty	William Jewell College	Men.	John P. Greene, LL. D.	W. O. Lewis, Ph. D.
Marshall	Missouri Valley College.	Coed.	Wm. H. Black, LL. D.	John J. Dynes, A. M.
Parkville	Park College	Coed.	Frederick W. Hawley, D. D.	W. A. Cook, A. M.

XVII.—UNIVERSITIES AND COLLEGES—PRESIDENTS AND HEADS OF DEPARTMENTS OF EDUCATION—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
MISSOURI—con.				
St. Louis	St. Louis University	Men	Bernard J. Otting, S. J.	
Do	Washington University	Coed	Frederic A. Hall, LL. D., chancellor.	Edgar J. Swift, Ph. D.
Springfield	Drury College	Coed	Thomas W. Nadal, Ph. D.	Joseph T. Williams, Ph. D.
Tarkio	Tarkio College	Coed	Joseph A. Thompson, D. D.	
Warrenton	Central Wesleyan College.	Coed	Otto E. Kriege, D. D.	Frank O. Spohrer, B. S.
MONTANA.[1]				
Bozeman	Montana College of Agriculture and Mechanic Arts.	Coed	J. M. Hamilton, M. S.	M. J. Abbey, A. B.
Butte	Montana State School of Mines.	Coed	Charles H. Bowman, M. S.	
Missoula	University of Montana	Coed	Edward O. Sisson, Ph. D.	
NEBRASKA.				
Bellevue	Bellevue College	Coed	David R. Kerr	
Bethany	Cotner University	Coed	Andrew D. Harmon, A. M.	Mrs. A. O. Thomas.
College View	Union College	Coed	Harry A. Morrison, A. M.	M. P. Robinson.
Crete	Doane College	Coed	Wm. O. Allen, Ph. D.	A. G. Heyhoe, A. M.
Grand Island	Grand Island College	Coed	Edward F. Jorden, D. D.	George Sutherland, D. D.
Hastings	Hastings College	Coed	R. B. Crone, Ph. B.	F. E. Weyer, A. M.
Lincoln	University of Nebraska[2]	Coed	Samuel Avery, LL. D., chancellor.	Charles Fordyce, Ph. D.
Omaha	Creighton University	Men	F. X. McMenamy, S. J.	Robert M. Kelley, S. J.
Do	University of Omaha	Coed	Daniel E. Jenkins, Ph. D.	P. R. Stevenson, A. M.
University Place	Nebraska Wesleyan University.	Coed	Isaac B. Schreckengast, S. T. B.	B. E. McProud, A. M.
York	York College	Coed	M. O. McLaughlin, D. D.	Guy Buswell, A. M.
NEVADA.				
Reno	State University of Nevada.	Coed	Walter E. Clark, Ph. D.	James Reed Young, A. M., acting
NEW HAMPSHIRE.				
Durham	New Hampshire College of Agriculture and Mechanic Arts.	Coed	Ralph D. Hetzel, LL. B.	Charles L. Simmers, B. A.
Hanover	Dartmouth College	Men	Ernest M. Hopkins, LL. D.	
Manchester	St. Anselm's College	Men	Abbot Ernest, O. S. B.	
NEW JERSEY.				
Convent Station	College of St. Elizabeth	Women	Sister Mary Pauline, LL. D.	Sister Regina Clare, B. S.
Hoboken	Stevens Institute of Technology.	Men	Alexander C. Humphreys, LL. D.	
Jersey City	St. Peter's College	Men	James F. McDermott, S. J.	
Kenilworth	Upsala College	Coed	Peter Froeberg, B. D.	
New Brunswick	Rutgers College	Men	Wm. H. S. Demarest, LL. D.	Charles H. Elliott, Ph. D.
Princeton	Princeton University	Men	John Grier Hibben, LL. D.	
South Orange	Seton Hall College	Men	Jas. F. Mooney, LL. D.	
NEW MEXICO.				
Albuquerque	University of New Mexico.	Coed	David R. Boyd, Ph. D.	Charles E. Hodgin, B. Pd.
Socorro	New Mexico School of Mines.	Coed	A. X. Illineki, Met. E.	
State College	New Mexico College of Agriculture and Mechanic Arts.	Coed	Austin D. Crile	John H. Vaughan, A. M.

[1] Chancellor of the University of Montana, Edward C. Elliot, Ph. D.
[2] Graduate School of Education, G. W. A. Luckey, Ph. D.

XVII.—UNIVERSITIES AND COLLEGES—PRESIDENTS AND HEADS OF DEPARTMENTS OF EDUCATION—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
NEW YORK.				
Albany	New York State College for Teachers.	Coed	A. R. Brubacher, Ph. D.	Leonard A. Blue, Ph. D.
Alfred	Alfred University	Coed	Boothe C. Davis, LL.D.	Ford S. Clarke, Ph. B.
Annandale	St. Stephen's College	Men	Wm. C. Rodgers, D.D.	
Aurora	Wells College	Women.	Kerr D. Macmillan, S. T. D.	
Brooklyn	Adelphi College	Coed	Frank D. Blodgett, LL. D.	James W. Park, A. M.
Do	College of St. Francis Xavier.	Men	Joseph H. Rockwell, S. J.	
Do	Polytechnic Institute of Brooklyn.	Men	Fred. W. Atkinson, Ph. D.	
Do	St. Francis College	Men	Brother David, O.S.F.	
Do	St. John's College	Men	John W. Moore, LL.D.	
Buffalo	Canisius College	Men	Geo. J. Krim, S. J.	
Do	University of Buffalo	Coed	Chas. P. Norton, chancellor.	Mary H. Lewis.
Canton	St. Lawrence University	Coed	Edwin L. Hulett, A.M., acting.	Charles M. Rebert, A. M.
Clinton	Hamilton College	Men	Frederick C. Ferry, LL. D.	William H. Squires, Ph. D.
Elmira	Elmira College	Women.	Frederick Lent, Ph. D.	John R. Tuttle, Ph. D.
Geneva	Hobart College	Coed	Lyman P. Powell, A.B.	
Hamilton	Colgate University	Men	Elmer B. Bryan, LL. D.	Melbourne S. Read, Ph D.
Ithaca	Cornell University	Coed	Jacob G. Schurman, LL. D.	George P. Bristol, A. M.
New Rochelle	College of New Rochelle.	Women.	Joseph F. Mooney, D. D.	M. M. Xavier, A. M.
New York	Barnard College	Women.	Virginia C. Gildersleeve, Ph. D., dean.	
Do	College of the City of New York.	Men	Sidney E. Mezes, LL. D.	Stephen P. Duggan, Ph. D.
Do	Columbia University	Coed	Nicholas M. Butler, LL. D.	(1)
Do	Fordham University	Men	Jos. A. Mulry, Ph. D.	
Do	Hunter College of the City of New York.	Women.	George S. Davis, LL. D.	James M. Kieran, LL. D.
Do	Manhattan	Men	Brother Edward, A. B.	F. J. Plattler, A. M.
Do	New York University	Coed	Elmer Ellsworth Brown, LL.D., chancellor.	Thomas M. Balliet, Ph. D.
Do	Teachers College	Coed	James E. Russell, LL. D., dean.	
Niagara University.	Niagara University	Men	Wm. F. Likly, C. M.	
Potsdam	Clarkson College of Technology.	Men	John P. Brooks, Sc.D., director.	
Poughkeepsie	Vassar College	Women.	Henry N. MacCracken, LL. D.	
Rochester	University of Rochester.	Coed	Rush Rhees, LL. D.	George M. Forbes, LL.D.
St. Bonaventure.	St. Bonaventure's College.	Men	Alexander M. Hickey, Ph. D.	
Schenectady	Union University	Men	Charles A. Richmond, LL. D.	
Syracuse	New York State College of Forestry (at Syracuse University).	Men	Hugh P. Baker, M. F., dean.	
Do	Syracuse University	Coed	James R. Day, LL. D., chancellor.	Mark E. Penney, Ph. D.
Troy	Rensselaer Polytechnic Institute.	Men	Palmer C. Ricketts, LL. D.	
Do	Russell Sage College of Practical Arts.	Women.	Eliza Kellas, Ph. B.	
West Point	United States Military Academy.	Men	Col. Samuel E Tillman, supt.	
NORTH CAROLINA.				
Asheville	St. Genevieve's College and Academy.	Women.	Mother M. L. Lorin	
Belmont	Belmont Abbey College.	Men	Leo Haid, D. D.	
Chapel Hill	University of North Carolina.	Coed		Marcus C. S. Noble, Ph. D.
Charlotte	Biddle University (colored).	Men	H. L. McCrorey, D. D.	
Do	Queens College	Women.	Henry C. Evans, D. D	

[1] See Teachers College.

XVII.—Universities and Colleges—Presidents and Heads of Departments of Education—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
NORTH CAROLINA—con.				
Davidson	Davidson College	Men	Wm. J. Martin, Ph. D.	Archibald Currie, A. M.
Durham	Trinity College	Coed	Wm. P. Few, LL D.	Eugene C. Brooks, Lit. D.
Elon College	Elon College	Coed	Wm. A. Harper, LL.D.	W. C. Wicker, Litt. D.
Greensboro	Greensboro College for Women.	Women.	S. B. Turrentine, D. D.	David F. Nicholson, A. M.
Guilford College	Guilford College	Coed	Raymond Binford, Ph. D.	
Hickory	Lenoir College	Coed	R. L. Fritz, D. D.	S. P. Schneider, A. M.
Raleigh	Meredith College	Women.	Charles E. Brewer, Ph. D.	Mary Shannon Smith, A. M.
Do	Peace Institute	Women.	Mary O. Graham	Ada V. Womble.
Do	St. Mary's School	Women.	Warren W. Way	
Do	Shaw University (colored).	Coed	Chas. F. Meserve, LL. D.	
Red Springs	Flora Macdonald College	Women.	C. G. Vardell, D. D.	
Salisbury	Livingstone College (colored).	Coed	D. C. Suggs, Ph. D.	W. H. Hannum, A. M.
Wake Forest	Wake Forest College	Men	Wm. L. Poteat, LL.D.	T. E. Cochran, A. M.
West Raleigh	North Carolina State College of Agriculture and Engineering.	Men	W. C. Riddick, LL. D.	Thomas E. Browne, A. B.
Wilson	Atlantic Christian College.	Coed	Raymond A. Smith, A. M.	F. F. Grim, A. M.
Winston-Salem	Salem Academy and College.	Women.	Howard E. Rondthaler, D. D.	Edwin J. Heath, B. D.
NORTH DAKOTA.				
Agricultural College.	North Dakota Agricultural College.	Coed	Edwin F. Ladd, LL. D.	Arland D. Weeks, A. M.
Fargo	Fargo College	Coed	E. Lee Howard, D. D.	Anna M. Tibbets, Ph. D.
Jamestown	Jamestown College	Coed	Barend H. Kroeze, D. D.	Francis B. Taylor, Ph. D.
University	University of North Dakota.	Coed	Thomas F. Kane, LL D.	Joseph Kennedy, LL. D.
OHIO.				
Ada	Ohio Northern University.	Coed	Albert E. Smith, D. D.	John Davison, D. Ped.
Akron	Municipal University of Akron.	Coed	Parke R. Kolbe, Ph. D.	
Alliance	Mount Union College	Coed	Wm. H. McMaster, D. D.	John B. Bowman, A. M.
Ashland	Ashland College	Coed	Wm. D. Furry, Ph. D.	Edward Byers, A. M.
Athens	Ohio University	Coed	Alston Ellis, LL. D.	John J. Richeson, D. Ped.
Berea	Baldwin-Wallace College.	Coed	A. B. Storms	Fletcher D. Ward. M.
Bluffton	Bluffton College	Coed	Samuel K. Mosiman, Ph. D.	Harry G. Good, Ph. D.
Cedarville	Cedarville College	Coed	Wilbert R. McChesney, D D.	Arthur St. C. Sloan, A. B
Cincinnati	St. Xavier College	Men	James McCabe, S. J.	
Do	University of Cincinnati.	Coed	Chas. W. Dabney, LL. D	Wm. P. Burris, L. H. D.
Cleveland	Case School of Applied Science.	Men	Charles S. Howe, Ph.D.	
Do	St. Ignatius College	Men	Wm. B. Sommerhouser, S. J.	
Do	Western Reserve University.	Coed	Charles F. Thwing, LL. D.	
Columbus	Capital University	Men	Otto Mees, A. M.	
Do	Ohio State University	Coed	Wm. O. Thompson, LL. D.	George W. Knight, Ph.D.
Dayton	St. Mary College	Men	Bernard P. O'Reilly, D. D.	
Defiance	Defiance College	Coed	Albert G. Caris, Litt.D.	E. L. Lawson, A. M.
Delaware	Ohio Wesleyan University.	Coed	John W. Hoffman, LL. D.	Arthur R. Mead, A. M.
Findlay	Findlay College	Coed	Wm. H. Guyer, D. D.	H. S. Brinser, M. Pd.
Gambier	Kenyon College	Men	Wm. F. Peirce, L.H.D.	
Granville	Denison University	Coed	Clark W. Chamberlain, Ph. D.	T. A. Lewis, Ph. D.
Hiram	Hiram College	Coed	Miner Lee Bates, LL. D.	M. R. Gabbert, A. M.

XVII.—UNIVERSITIES AND COLLEGES—PRESIDENTS AND HEADS OF DEPARTMENTS OF EDUCATION—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
OHIO—continued.				
Marietta	Marietta College	Coed.	George W. Hinman, Ph. D.	Jesse V. McMillan, A. M.
New Athens	Franklin College	Coed.	Will M. Hughes, D. D.	W. R. Cornetet, B. S.
New Concord	Muskingum College	Coed.	J. K. Montgomery, D. D.	J. G. Lowery, A. M.
Oberlin	Oberlin College	Coed.	Henry C. King, LL. D.	Edward A. Miller, Ph. D.
Oxford	Miami University	Coed.	Raymond M. Hughes, M. S.	Harvey C. Minnick, LL. D.
Do	Oxford College for Women.	Women.	Eleanor N. Adams, Ph. D.	Marian A. Bills, Ph. D.
Do	Western College for Women.	Women.	W. W. Boyd, Ph. D.	Jay G. Hickox, B. S.
Painesville	Lake Erie College	Women.	Vivian Blanche Small, LL. D.	Esther Crane, Ph. D.
Rio Grande	Rio Grande College	Coed.	Simeon H. Bing, A. M.	W. G. Scarberry, A. B.
Springfield	Wittenberg College	Coed.	Charles G. Heckert, D. D.	T. Bruce Birch, Ph. D.
Tiffin	Heidelberg University	Coed.	Charles E. Miller, LL. D.	E. I. F. Williams, A. M.
Toledo	St. John's University	Men.	Francis X. Buch, A. M.	Francis P. Kemper, A. M.
Do	Toledo University	Coed.	A. Monroe Stowe, Ph. D.	A. W. Trettien, Ph. D.
Westerville	Otterbein College	Coed.	Walter G. Clippinger, D. D.	Edmund A. Jones, Ph. D.
Wilberforce	Wilberforce University (colored).	Coed.	Wm. S. Scarborough, LL. D.	Gilbert Jones, Ph. D.
Wilmington	Wilmington College	Coed.	J. Edwin Jay, A. M.	Fred C. Waters, A. M.
Wooster	College of Wooster	Coed.	J. Campbell White, LL. D.	Martin Remp, A. M.
Yellowsprings	Antioch College	Coed.	George D. Black, D. D.	Stephen F. Weston, Ph. D.
OKLAHOMA.				
Chickasha	Oklahoma College for Women.	Women.	G. W. Austin, B. S.	I. E. Mott, A. M.
East End	Phillips University	Coed.	Isaac N. McCash, LL. D.	Samuel H. Horne, A. M.
Guthrie	Methodist University of Oklahoma.	Coed.	Edward Hislop, D. D.	Edwin G. Green, A. B.
Kingfisher	Kingfisher College	Coed.	Henry W. Tuttle, D. D.	
Norman	University of Oklahoma.	Coed.	Stratton D. Brooks, LL. D.	W. W. Phelan, Ph. D.
Stillwater	Oklahoma Agricultural and Mechanical College.	Coed.	James W. Cantwell, A. M.	John H. Bowers, Ph. D.
Tulsa	Henry Kendall College	Coed.	Arthur L. Odell, D. D.	
OREGON.				
Albany	Albany College	Coed.	Wallace H. Lee, LL. D.	
Corvallis	Oregon Agricultural College.	Coed.	William J. Kerr, Sc. D.	Edwin D. Ressler, A. M.
Eugene	University of Oregon	Coed.	Prince L. Campbell, LL. D.	Henry D. Sheldon, Ph. D.
Forest Grove	Pacific University	Coed.	Robert F. Clark, A. M.	Henry L. Bates, A. M.
McMinnville	McMinnville College	Coed.	Leonard W. Riley, D. D.	Curtis P. Coe, A. B.
Newberg	Pacific College	Coed.	Levi T. Pennington, A. B.	R. W. Lewis, Ph. B.
Portland	Reed College	Coed.	Wm. T. Foster, LL. D.	Hoseph K. Hart, Ph. D.
Salem	Willamette University	Coed.	Carl G. Doney, LL. D.	Charles L. Sherman, Ph. D.
PENNSYLVANIA.				
Allentown	Allentown College for Women.	Women.	Wm. F. Curtis, Litt. D.	
Do	Muhlenberg College	Men.	John A. W. Haas, D. D.	Isaac M. Wright, Pd. D.
Annville	Lebanon Valley College	Coed.	George D. Gossard, D. D.	S. O. Grimm, A. M.
Beatty	St. Vincent College	Men.	Leander Schnerr, D. D.	
Beaver	Beaver College	Women.	Horace B. Haskell, D. D.	C. Mace Thomas, Ph. D.
Beaver Falls	Geneva College	Coed.	R. H. Martin, B. D.	Harry H. Wylie, A. M.
Bethlehem	Moravian College	Men.	J. Taylor Hamilton, D. D.	
Do	Moravian Seminary and College for Women.	Women.	John H. Clewell, Ph. D.	Percy Hughes, Ph. D.

XVII.—Universities and Colleges—Presidents and Heads of Departments of Education—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
PENNSYLVANIA—continued.				
Bryn Mawr	Bryn Mawr College	Women.	Miss M. Carey Thomas, LL. D.	Matilde Castro, Ph.D.
Carlisle	Dickinson College	Coed.	James H. Morgan, LL. D.	W. H. Norcross, A. M.
Chambersburg	Wilson College	Women.	Ethelbert D. Warfield, LL. D.	Elsie Murray, Ph. D.
Chester	Pennsylvania Military College.	Men.	Chas. E. Hyatt, LL.D.	
Collegeville	Ursinus College	Coed.	George L. Omwake, D.D.	
Easton	Lafayette College	Men.	John H. MacCracken, LL. D.	
Gettysburg	Pennsylvania College	Coed.	William A. Granville, LL. D.	C. F. Sanders, D. D.
Greenville	Thiel College	Coed.	Henry W. Elson, Ph. D.	C. B. Wakefield, D. D.
Grove City	Grove City College	Coed.	Weir C. Ketler, A. M.	Charles A. Platt, Ph. D.
Haverford	Haverford College	Men.	William W. Comfort, Ph. D.	
Huntingdon	Juniata College	Coed.	I. Harvey Brumbaugh, A. M.	C. C. Ellis, Ph. D.
Lancaster	Franklin and Marshall College.	Men.	Henry H. Apple, LL. D.	H. M. J. Klein, Ph. D.
Lewisburg	Bucknell University	Coed.	John H. Harris, LL.D.	Llewellyn Phillips, D.D.
Lincoln Univer-sity.	Lincoln University (colored.)	Men.	John B. Rendall, D.D.	George Johnson, Ph. D.
Meadville	Allegheny College	Coed.	Wm. H. Crawford, LL. D.	Frederick G. Henke, Ph. D.
Mechanicsburg	Irving Female College	Women.	E. E. Campbell, Ph. D.	
Myerstown	Albright College	Coed.	L. Clarence Hunt, D. D.	C. A. Bowman, Ph D.
New Wilmington	Westminster College	Coed.	W. C. Wallace, D. D.	John A. Shott, A. M.
Philadelphia	Drexel Institute	Coed.	Hollis Godfrey, Sc. D.	
Do	Dropsie College	Coed.	Cyrus Adler, Ph. D.	
Do	La Salle College	Men.	Brother Richard, A. M.	
Do	St. Joseph's College	Men.	Redmond J. Walsh, S. J.	
Do	Temple University	Coed.	Russell H. Conwell, LL. D.	John A. Lesh, Ph. D.
Do	University of Pennsylvania.	Coed.	Edgar Fahs Smith, LL. D., provost.	Frank P. Graves, LL. D
Pittsburgh	Carnegie Institute of Technology.	Coed.	Arthur A. Hamerschlag, L.L D.	Walter V. Bingham, Ph. D.
Do	Duquesne University of the Holy Ghost.	Men.	Martin A. Hehir, LL. D.	
Do	Pennsylvania College for Women.	Women.	John C. Acheson, LL. D.	George B. Lawson, Ph.D.
Do	University of Pittsburgh.	Coed.	Samuel B. McCormick, LL.D., chancellor.	Will G. Chambers, A. M.
Selinsgrove	Susquehanna University	Coed.	Charles T. Aikens, D.D.	
South Bethlehem	Lehigh University	Men.	Henry S. Drinker, LL. D.	Percy Hughes, Ph. D.
State College	Pennsylvania State College.	Coed.	Edwin E. Sparks, D. LL.	David A. Anderson, Ph. D.
Swarthmore	Swarthmore College	Coed.	Joseph Swain, LL. D.	Sturgiss B. Davis, A. M.
Villanova	Villanova College	Men.	James J. Dean, A. M.	Joseph A. Hickey, A. M.
Washington	Washington and Jefferson College.	Men.	Frederick W. Hinitt, LL. D.	Edward M. Weyer, Ph. D.
Waynesburg	Waynesburg College	Coed.	J. W. McKay, LL. D.	J. H. Edgerton, A. M.
PORTO RICO.				
San Juan	University of Porto Rico	Coed.	Paul G. Miller, Ph. D.	Susan D. Huntington, A. M.
RHODE ISLAND.				
Kingston	Rhode Island State College.	Coed.	Howard Edwards, LL. D.	Lester W. Boardman, A. M.
Providence	Brown University	Coed.	W. H. P. Faunce, LL. D.	Walter B. Jacobs, A. M.

XVII.—UNIVERSITIES AND COLLEGES—PRESIDENTS AND HEADS OF DEPARTMENTS OF EDUCATION—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
SOUTH CAROLINA.				
Charleston	College of Charleston	Men	Harrison Randolph, LL. D.	
Do	The Citadel, the Military College of South Carolina.	Men	Col. O. J. Bond, A. M., superintendent.	
Clemson College	Clemson Agricultural College.	Men	Walter M. Riggs, LL. D.	Verd Peterson, A. B.
Clinton	Presbyterian College of South Carolina.	Coed	Davison McD. Douglas, D. D.	Daniel J. Brimm, D. D.
College Place	Columbia College	Women	G. T. Pugh, Ph. D.	J. P. Patton, A. M.
Columbia	Benedict College (colored).	Coed	B. W. Valentine, A. M.	
Do	Chicora College for Women.	Women	S. C. Byrd, D. D.	Mary E. Armstrong, A. B.
Do	University of South Carolina.	Coed	Wm. S. Currell, LL. D.	Patterson Wardlaw, LL. D.
Due West	Erskine College	Coed	James S. Moffatt, D. D.	
Do	Woman's College of Due West.	Women	Richard L. Robinson, D. D.	
Greenville	Furman University	Men	Edwin McNeil Poteat, LL. D.	Orlin O. Fletcher, D. D.
Do	Greenville Female College.	Women	David M. Ramsey, D. D.	
Greenwood	Lander College	Women	John O. Willson, D. D.	Elizabeth Alexander, A. B.
Hartsville	Coker College for Women	Women	Howard Lee Jones, D. D.	
Newberry	Newberry College	Coed	S. J. Derrick, A. M.	
Spartanburg	Converse College	Women	Robert P. Pell, Litt. D.	M. A. Martin, Ph. D.
Do	Wofford College	Men	Henry N. Snyder, LL. D.	Arthur G. Rembert, LL. D.
SOUTH DAKOTA.				
Brookings	South Dakota State College of Agriculture and Mechanic Arts.	Coed	Ellwood C. Perisho, LL. D.	Charles H. Brady, A. M.
Huron	Huron College	Coed	Harry M. Gage, LL. D.	Walter L. Harris, A. M.
Mitchell	Dakota Wesleyan University.	Coed	W. D. Schermerhorn, D. D.	H. P. Patterson, Ph. D.
Rapid City	State School of Mines	Coed	Cleophas C. O'Hara, Ph. D.	
Sioux Falls	Sioux Falls College	Coed	D. F. Charles	A. W. Fauquet, A. M.
Vermilion	University of South Dakota.	Coed	Robert L. Slagel, Ph. D.	W. F. Jones, Ph. D.
Yankton	Yankton College	Coed	Henry K. Warren, LL. D.	M. A. Stewart, Ph. D.
TENNESSEE.				
Bristol	King College	Men	Tilden Scherer, D. D.	K. A. Hagy, A. M.
Chattanooga	University of Chattanooga.	Coed	Frederick W. Hixon, D. D.	W. W. Hooper, D. D.
Clarksville	Southwestern Presbyterian University.	Men	Chas. E. Diehl, D. D.	Wm. Dinwiddie, LL. D.
Greenville	Tusculum College	Coed	Chas. O. Gray, D. D.	Edward A. Hirschman, Ph. B.
Harrogate	Lincoln Memorial University.	Coed	George A. Hubbell, Ph. D.	Thomas B. Ford, A. M.
Jackson	Union University	Coed	G. M. Savage, LL. D.	A. T. Barrett, LL. D.
Jefferson City	Carson and Newman College.	Coed	Wm. L. Gentry, B. S.	
Knoxville	Knoxville College (colored).	Coed	J. K. Giffin, A. B.	
Do	University of Tennessee	Coed	Brown Ayres, LL. D.	John A. Thackston, Ph. D.
Lebanon	Cumberland University	Coed	Edward P. Childs, A. M.	
McKenzie	Bethel College	Coed	N. J. Finney, A. M.	
Maryville	Maryville College	Coed	Samuel T. Wilson, D. D.	Jasper C. Barnes, Ph. D.
Memphis	Christian Brothers College.	Men	Brother John, A. M.	
Milligan	Milligan College	Coed	H. J. Derthick, A. M.	Willis B. Boyd, A. M.
Murfreesboro	Tennessee College	Women	Geo. J. Burnett, A. M.	C. M. Faithfull, A. M.

XVII.—Universities and Colleges—Presidents and Heads of Departments of Education—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
TENNESSEE—con.				
Nashville	Fisk University (colored).	Coed.	Fayette A. McKenzie, Ph. D.	Belle R. Parmenter, B. Ped.
Do	George Peabody College for Teachers.	Coed.	Bruce R. Payne, Ph. D.	
Do	Vanderbilt University	Coed.	James H. Kirkland, LL. D., chancellor.	
Ruskin	Ruskin-Cave College	Coed.		
Sewanee	University of the South	Men.	Albion W. Knight, D. D., vice chancellor.	
Spencer	Burritt College	Coed.	W. S. Graves, A. M.	
Washington College	Washington College	Coed.	James T. Cooter, D. D.	Wm. J. Wilkinson, B. L.
TEXAS.				
Abilene	Simmons College	Coed.	Jefferson D. Sandefer, Ph. B.	Oscar H. Cooper, LL. D.
Austin	University of Texas	Coed.	Robert E. Vinson, LL. D.	Wm. S. Sutton, LL. D.
Belton	Baylor Female College	Women.	John C. Hardy, LL. D.	Payton Jacobs, A. M.
Brownwood	Daniel Baker College	Coed.	Tinsley P. Junkin, LL. D.	
Do	Howard Payne College	Coed.	Judson A. Tolman, Ph. D.	
College Station	Agricultural and Mechanical College of Texas.	Men.	Wm. B. Bizzell, D. C. L.	Martin L. Hayes, A. M.
Dallas	Southern Methodist University.	Coed.	Robert S. Hyer, LL. D.	Paul W. Terry, A. M.
Denton	College of Industrial Arts	Women.	F. M. Bralley, A. B.	R. J. Turrentine, A. M.
Fort Worth	Texas Woman's College.	Women.	J. D. Young, LL. B.	Elzy D. Jennings, A. M.
Do	Texas Christian University.	Coed.	W. B. Parks, Ph. D., acting.	W. H. Batson, Ph. D.
Georgetown	Southwestern University	Coed.	Charles M. Bishop, D. D.	Claude A. Nichols, Ph. D.
Houston	Rice Institute	Coed.	Edgar O. Lovett, LL. D.	R. A. Tsanoff, Ph. D.
San Antonio	St. Louis College	Men.	A. Frische, S. M.	
Sherman	Austin College	Men.	Thomas S. Clyce, LL. D.	J. J. Delaney, A. M.
Tehuacana	Westminster College	Coed.	John C. Williams, D. D	
Waco	Baylor University	Coed.	Samuel P. Brooks, LL. D.	A. J. Hall, Ph. D.
Waxahachie	Trinity University	Coed.	Samuel Lee Hornbeak, LL. D.	W. M. Liggett, A. M.
UTAH.				
Logan	Agricultural College of Utah.	Coed.	E. G. Peterson, Ph. D.	
Salt Lake City	University of Utah	Coed.	John A. Widtsoe, LL. D.	Milton Bennion, A. M.
VERMONT.				
Burlington	University of Vermont and State Agricultural College.	Coed.	Guy P. Benton, LL. D.	James F. Messenger, Ph. D.
Middlebury	Middlebury College	Coed.	John Martin Thomas, LL. D.	Raymond McFarland, A. M.
Northfield	Norwich University	Men.	Herbert R. Roberts, D. C. L., acting.	
Winooski	St. Michael's College	Men.	E. M. Salmon, D. D.	
VIRGINIA.				
Abingdon	Martha Washington College.	Women.	Samuel D. Long, A. B.	
Ashland	Randolph-Macon College.	Men.	Robert E. Blackwell, LL. D.	
Blacksburg	Virginia Agricultural and Mechanical College and Polytechnic Institute.	Men.	Joseph D. Eggleston, A. M.	
Bridgewater	Bridgewater College	Coed.	John S. Flory, Ph. D.	P. H. Bowman, D. D.
Charlottesville	University of Virginia	Men.	Edwin A. Alderman, LL. D.	W. H. Heck, Ph. D.

XVII.—Universities and Colleges—Presidents and Heads of Departments of Education—Continued.

Location.	University or college.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
VIRGINIA—con.				
Emory	Emory and Henry College.	Men	Chas. C. Weaver, Ph. D.	
Hampden-Sidney	Hampden-Sidney College.	Men	A. W. McWhorter, Ph. D., acting.	
Hollins	Hollins College	Women.	Matty L. Cocke	
Lexington	Virginia Military Institute.	Men	Edward W. Nichols, supt.	
Do	Washington and Lee University.	Men	Henry Louis Smith, LL. D.	
Lynchburg	Randolph-Macon Woman's College.	Women.	Wm. A. Webb, LL. D.	E. B. Crooks, Ph. D.
Do	Virginia Christian College.	Coed	J. T. T. Hundley, A. B.	
Manassas	Eastern College	Coed	Hervin U. Roop, LL. D.	
Richmond	Richmond College	Coed	F. W. Boatwright, LL. D.	D. B. Bryan, Ped. D.
Do	Virginia Union University (colored).	Men	George R. Hovey, D. D.	M. P. Robinson, A. B.
Salem	Roanoke College	Men	John A. Morehead, D. D.	F. V. N. Painter, Litt. D.
Do	Elizabeth College	Women.	John C. Peery, A. M.	Irene B. Palmer.
Sweet Briar	Sweet Briar College	Women.	Emilie W. McVea, Litt. D.	
Williamsburg	College of William and Mary.	Men	Lyon G. Tyler, LL. D.	C. H. Hatz, Ph. D.
WASHINGTON.				
Pullman	State College of Washington.	Coed	Ernest O. Holland, Ph. D.	Alfred A. Cleveland, Ph. D.
Seattle	University of Washington.	Coed	Henry Suzzallo, Ph. D.	Frederick E. Bolton, Ph. D.
Spokane	Gonzaga University	Men	James M. Brogan, S. J.	
Tacoma	College of Puget Sound	Coed	Edward H. Todd, D. D	O. E. Reynolds, A. M.
Walla Walla	Whitman College	Coed	Stephen B. L. Penrose, D. D.	
WEST VIRGINIA.				
Bethany	Bethany College	Coed	Thomas E. Cramblet, LL. D.	W. H. Cramblet, Ph. D.
Buckhannon	West Virginia Wesleyan College.	Coed	Wallace B. Fleming, D. D.	B. F. Haught, A. M.
Elkins	Davis and Elkins College.	Coed	James E. Allen, A. B.	Florence A. Kellogg, A. M.
Morgantown	West Virginia University.	Coed	Frank B. Trotter, LL. D.	Jasper N. Deahl, Ph. D.
WISCONSIN.				
Appleton	Lawrence College	Coed	Samuel Plantz, LL. D.	Lester B. Rogers, Ph. D.
Beloit	Beloit College	Coed	Melvin A. Brannon, LL. D.	Almon W. Burr, A. M.
Madison	University of Wisconsin.	Coed	Edward A. Birge, LL. D.	V. A. C. Henmon, Ph. D.
Milton	Milton College	Coed	Wm. C. Daland, D. D.	
Milwaukee	Marquette University	Men	Herbert C. Noonan, S. J.	
Do	Milwaukee-Downer College.	Women.	Ellen C. Sabin, LL. D.	Mina Kerr, Ph. D.
Plymouth	Mission House	Coed	E. A. Hofer, D. D.	
Prairie du Chien	Campion College	Men	Albert C. Fox, S. J.	
Ripon	Ripon College	Coed	H. C. Culbertson, LL. D.	Wm. J. Mutch, Ph. D.
Sinsinawa	St. Clara College and Academy.	Women.	Mother Mary Samuel	Sister M. Ruth, Ph. D.
Watertown	Northwestern College	Men	August F. Ernst, Ph. D.	
Waukesha	Carroll College	Coed	Herbert P. Houghton, Ph. D.	S. B. Ray, L. H. D.
WYOMING.				
Laramie	University of Wyoming.	Coed	Aven Nelson, Ph. D.	J. E. Bullern.

XVIII.—Universities and Colleges—Deans or Directors of Colleges or Schools of Engineering.

Location.	Name of institution.	Dean or director.
Auburn, Ala	Alabama Polytechnic Institute	John J. Wilmore, M. E.
University, Ala	University of Alabama	George J. Davis, jr., C. E.
Tucson, Ariz	University of Arizona	Gurdon M. Butler, E. M.
Fayetteville, Ark	University of Arkansas	Wm. N. Gladson, Ph. D.
Berkeley, Cal	University of California	Charles Derleth, jr., C. E.[1] Andrew C. Lawson, Ph. D.[3] Clarence L. Cory, D. Eng.[3]
Los Angeles, Cal	University of Southern California	Charles W. Lawrence, C. E.
Pasadena, Cal	Throop College of Technology	George A. Damon, E. E.
Santa Clara, Cal	University of Santa Clara	Joseph L. Donovan, C. E.[4]
Stanford University, Cal	Leland Stanford Junior University	George L. Sullivan, Ph. D.[5] Charles D. Marx, C. E.[4] Harris J. Ryan, M. E.[6] William F. Durand, Ph. D.[7]
Boulder, Colo	University of Colorado	Milo S. Ketchum, C. E.
Colorado Springs, Colo	Colorado College	
Fort Collins, Colo	Colorado Agricultural College	L. D. Crane, M. M. E.
Golden, Colo	State School of Mines	Victor C. Alderson, Sc. D.
New Haven, Conn	Sheffield Scientific School (Yale University).	Russell H. Chittenden, Sc. D.
Newark, Del	Delaware College	Allen R. Cullimore, B. S.
Washington, D. C	Catholic University of America	Aubrey E. Landry, Ph. D.
Do	George Washington University	Howard L. Hodgkins, Ph. D.
Do	Howard University (colored)	Harold D. Hatfield, M. E.
Gainesville, Fla	University of Florida	John R. Benton, Ph. D.
Athens, Ga	University of Georgia	Charles M. Strahan, Sc. D.
Atlanta, Ga	Georgia School of Technology	William H. Emerson, Ph. D.
Moscow, Idaho	University of Idaho	Charles N. Little, Ph. D.
Chicago, Ill	Armour Institute of Technology	Howard M. Raymond, B. S.
Do	Lewis Institute	P. B. Woodworth, M. E.
Evanston, Ill	Northwestern University	John F. Hayford, C. E.
Urbana, Ill	University of Illinois	C. Russ Richards, M. E.
La Fayette, Ind	Purdue University	Charles H. Benjamin, D. Eng.
Notre Dame, Ind	University of Notre Dame	Martin McCue, C. E.
Terre Haute, Ind	Rose Polytechnic Institute	Carl L. Mees, Ph. D.
Valparaiso, Ind	Valparaiso University	Frank Theroux, C. E.
Ames, Iowa	Iowa State College of Agriculture and Mechanic Arts.	S. W. Beyer, Ph. D.
Iowa City, Iowa	State University of Iowa	William G. Raymond, LL. D.
Lawrence, Kans	University of Kansas	Perley F. Walker, M. M. E.
Manhattan, Kans	Kansas State Agricultural College	Audrey A. Potter, B. S.
Lexington, Ky	University of Kentucky	Frederick P. Anderson, M. E.
Baton Rouge, La	Louisiana State University and Agricultural and Mechanical College.	Thomas W. Atkinson, C. E.
New Orleans, La	Tulane University of Louisiana	William H. Creighton, U. S. N.
Orono, Me	University of Maine	Harold S. Boardman, C. E.
Baltimore, Md	Johns Hopkins University	John B. Whitehead, Ph. D.
College Park, Md	Maryland State College of Agriculture	T. H. Taliaferro, Ph. D.
Cambridge, Mass	Massachusetts Institute of Technology	Alfred E. Burton, Sc. D.
Lowell, Mass	Lowell Textile School	Herbert J. Ball, B. S.
Tufts College, Mass	Tufts College	Gardner C. Anthony, Sc. D.
Worcester, Mass	Worcester Polytechnic Institute	Ira N. Hollis, Sc. D.
Ann Arbor, Mich	University of Michigan	Mortimer E. Cooley, D. Eng.
Detroit, Mich	University of Detroit	Jay R. McColl, B. S.
East Lansing, Mich	Michigan Agricultural College	George W. Bissell, M. E.
Houghton, Mich	Michigan College of Mines	Fred W. McNair, Sc. D.
Minneapolis, Minn	University of Minnesota	John R. Allen, M. E. William R. Appleby, A. M.[8]
Agricultural College, Miss	Mississippi Agricultural and Mechanical College.	B. M. Walker, Ph. D.
University, Miss	University of Mississippi	John H. Dorroh, C. E.
Columbia, Mo	University of Missouri	Elmer J. McCaustland, M. C. E. Austin L. McRae, Sc. D.[8]
St. Louis, Mo	Washington University	Alexander S. Langsdorf, M. M. E.
Bozeman, Mont	Montana College of Agriculture and Mechanic Arts.	Arthur W. Richter, M. M. E.
Butte, Mont	Montana State School of Mines	Charles H. Bowman, M. S.
Lincoln, Nebr	University of Nebraska	Olin J. Ferguson, M. E. E., acting.
Reno, Nev	University of Nevada	James G. Scrugham, M. E. Francis C. Lincoln, Ph. D.[9]
Durham, N. H	New Hampshire College of Agriculture and Mechanic Arts.	Charles E. Hewett, M. M. E.
Hanover, N. H	Dartmouth College	Charles A. Holden, C. E., acting.
Hoboken, N. J	Stevens Institute of Technology	Alexander C. Humphreys, LL. D.
New Brunswick, N. J	Rutgers College	Alfred A. Titsworth, Sc. D.
Princeton, N. J	Princeton University	Frank H. Constant, Sc. D.

[1] Dean of the college of civil engineering.
[2] Dean of the college of mines.
[3] Dean of the college of mechanics.
[4] Professor of civil engineering.
[5] Professor of mechanical-electrical engineering.
[6] Professor of electrical engineering.
[7] Professor of mechanical engineering.
[8] Dean of the school of mines.
[9] Director of Mackay School of Mines.

XVIII.—Universities and Colleges—Deans or Directors of Colleges or Schools of Engineering—Continued.

Location.	Name of institution.	Dean or director.
Albuquerque, N. Mex.	University of Mexico	W. L. Ray, A. M.
Socorro, N. Mex.	New Mexico School of Mines	Alexis X. Illineki, Met. E.
State College, N. Mex.	New Mexico College of Agriculture and Mechanic Arts.	Arthur F. Barnes, B. S.
Brooklyn, N. Y.	Polytechnic Institute of Brooklyn	Fred W. Atkinson, Ph. D.
Ithaca, N. Y.	Cornell University	Eugene E. Haskell, C. E.[1]
		Dexter S. Kimball, M. E.[2]
New York, N. Y.	College of the City of New York	David B. Steinman, Ph. D.
Do.	Columbia University	George B. Pegram, Ph. D.
Do.	Manhattan College	Brother Thomas, C. E.
Do.	New York University	Charles H. Snow, Sc. D.
Potsdam, N. Y.	Clarkson College of Technology	John P. Brooks, Sc. D.
Rochester, N. Y.	University of Rochester	Millard C. Ernsberger, M. E.
Schenectady, N. Y.	Union University	A. B. McDaniel, B. S.[3]
		Ernst J. Berg, Sc. D.[4]
Syracuse, N. Y.	Syracuse University	William P. Graham, Ph. D.
Troy, N. Y.	Rensselaer Polytechnic Institute	Palmer C. Ricketts, LL. D.
Chapel Hill, N. C.	University of North Carolina	Andrew H. Patterson, A. M.
West Raleigh, N. C.	North Carolina State College of Agriculture and Engineering.	Howard E. Satterfield, M. E.[5]
		Carroll L. Mann, C. E.[3]
Agricultural College, N. Dak.	North Dakota Agricultural College	William H. Browne, A. B.[4]
University, N. Dak.	University of North Dakota	Edward S. Keene, M. E.
Ada, Ohio.	Ohio Northern University	Earle J. Babcock, Sc. D.
Akron, Ohio.	Municipal University of Akron	Charles A. Miller, C. E.
Cincinnati, Ohio.	University of Cincinnati	Fred E. Ayer, C. E.
Cleveland, Ohio.	Case School of Applied Science	Herman Schneider, Sc. D.
Columbus, Ohio.	Ohio State University	Charles S. Howe, Sc. D.
Dayton, Ohio.	St. Mary College	Edwin F. Coddington, Ph. D.
Norman, Okla.	University of Oklahoma	Brother Adam Hofmann, S. M.
Stillwater, Okla.	Oklahoma Agricultural and Mechanical College.	James H. Felgar, M. E.
		Alfred Boyd, C. E.
Corvallis, Oreg.	Oregon State Agricultural College	Grant A. Covell, M. E.
Chester, Pa.	Pennsylvania Military College	Harold C. Bird, C. E.
Easton, Pa.	Lafayette College	Edward Hart, Ph. D.
Gettysburg, Pa.	Pennsylvania College	F. H. Clutz, Ph. D.
Lewisburg, Pa.	Bucknell University	Charles A. Lindemann, A. M.
Philadelphia, Pa.	Drexel Institute	Arthur J. Rowland, Sc. D.
Do.	University of Pennsylvania	John Frazer, Ph. D.
Pittsburgh, Pa.	Carnegie Institute of Technology	W. E. Mott, C. E.
Do.	University of Pittsburgh	Frederic L. Bishop, Ph. D.
South Bethlehem, Pa.	Lehigh University	N. M. Emery, Litt. D., acting.
State College, Pa.	Pennsylvania State College	Robert L. Sackett, C. E.
		Elwood S. Moore, Ph. D.[6]
Swarthmore, Pa.	Swarthmore College	George F. Blessing, Ph. D.
Villanova, Pa.	Villanova College	Francis A. Driscoll, A. M.
Kingston, R. I.	Rhode Island State College	Royal L. Wales, B. S.
Providence, R. I.	Brown University	William H. Kenerson, A. M.
Charleston, S. C.	The Citadel, the Military College of South Carolina.	Robert G. Thomas, C. E.
Clemson College, S. C.	Clemson Agricultural College	Samuel B. Earle, M. E.
Columbia, S. C.	University of South Carolina	Marshall G. Holmes, C. E.
Brookings, S. Dak.	South Dakota State College of Agriculture and Mechanic Arts.	Halvor C. Solberg, M. E.
Rapid City, S. Dak.	South Dakota State School of Mines	Cleophas C. O'Harra, Ph. D.
Vermilion, S. Dak.	University of South Dakota	Lewis E. Akeley, LL. D.
Knoxville, Tenn.	University of Tennessee	Charles E. Ferris, B. S.
Nashville, Tenn.	Vanderbilt University	W. H. Schuerman, C. E.
Austin, Tex.	University of Texas	Thomas U. Taylor, M. C. E.
College Station, Tex.	Agricultural and Mechanical College of Texas.	James C. Nagle, M. C. E.
Houston, Tex.	Rice Institute	Herbert K. Humphrey, E. E.
Salt Lake City, Utah.	University of Utah	Ray B. West, C. E.
Burlington, Vt.	University of Vermont and State Agricultural College.	Josiah W. Votey, Sc. D.
Northfield, Vt.	Norwich University	Arthur W. Winslow, C. E.
Blacksburg, Va.	Virginia Agricultural and Mechanical College and Polytechnic Institute.	Samuel R. Pritchard, A. M.
Charlottesville, Va.	University of Virginia	William M. Thornton, LL. D.
Lexington, Va.	Virginia Military Institute	T. A. Jones, B. S.
Do.	Washington and Lee University	David C. Humphreys, C. E.
Pullman, Wash.	State College of Washington	H. U. Carpenter, M. S.
Seattle, Wash.	University of Washington	Carl E. Magnusson, Ph. D.
Morgantown, W. Va.	West Virginia University	Clement R. Jones, M. M. E.
Madison, Wis.	University of Wisconsin	Frederick E. Turneaure, D. Eng.
Milwaukee, Wis.	Marquette University	J. C. Pinney, C. E.
Laramie, Wyo.	University of Wyoming	Elmer G. Hoefer, M. E.

[1] Dean of the college of civil engineering.
[2] Acting dean of Sibley College.
[3] Professor of civil engineering.
[4] Professor of electrical engineering.
[5] Professor of mechanical engineering.
[6] Dean of the school of mines.

XIX.—Universities and Colleges—Deans of Women.

Location.	University or college.	For women, or coeducational.	Name of dean.
ALABAMA.			
Athens	Athens College for Young Women	Women	
Auburn	Alabama Polytechnic Institute	Coed	
Birmingham	Birmingham—Southern College	Coed	
Do	Howard College	Coed	Nannie M. Hiden.
Marion	Judson College	Women	
Montevallo	Alabama Girls Technical School	Women	Mary G. Stallworth.
Montgomery	Woman's College of Alabama	Women	Lena J. Hawks.
University	University of Alabama	Coed	Mrs. James S. Thomas.
ARIZONA.			
Tucson	University of Arizona	Coed	Anna A. Fisher.
ARKANSAS.			
Arkadelphia	Henderson-Brown College	Coed	
Do	Ouachita College	Coed	Annie R. Storts.
Batesville	Arkansas College	Coed	
Clarksville	Arkansas Cumberland College	Coed	
Conway	Central College	Women	Caroline B. Phelps.
Do	Hendrix College	Coed	
Fayetteville	University of Arkansas	Coed	Mary Davis.
CALIFORNIA.			
Berkeley	University of California	Coed	Lucy M. Stebbins.
Claremont	Pomona College	Coed	Grace E. Berry.
Los Angeles	Occidental College	Coed	Irene T. Myers.
Do	University of Southern California	Coed	Mrs. Maryette MacKey.
Mills College	Mills College	Women	Hettie B. Ege.
Redlands	University of Redlands	Coed	Mrs. L. M. Redden.
St. Helena	Pacific Union College	Coed	
San Jose	College of the Pacific	Coed	Mariam Barr.
Stanford University	Leland Stanford Junior University	Coed	Harriet Bradford.
Whittier	Whittier College	Coed	Ida B. Lindley, adviser.
COLORADO.			
Boulder	University of Colorado	Coed	Irene P. McKeehan, acting.
Colorado Springs	Colorado College	Coed	Marion Churchill.
Fort Collins	Colorado Agricultural College	Coed	Virginia H. Corbett.
Greeley	Colorado State Teachers College	Coed	Helen Gilpin-Brown.
Montclair	Colorado Woman s College	Women	
University Park	University of Denver	Coed	Anne McK. Shuler.
CONNECTICUT.			
New London	Connecticut College for Women	Women	Irene Nye.
Storrs	Connecticut Agricultural College	Coed	M. E. Sprague.
DELAWARE.			
Newark	Delaware College	Coed	Winifred J. Robinson.[1]
DISTRICT OF COLUMBIA.			
Washington	American University	Coed	
Do	Gallaudet College	Coed	Charlotte Weiss.
Do	George Washington University	Coed	
Do	Howard University (colored)	Coed	Mary I. Hardwick, preceptress.
Do	Trinity College	Women	Sister Mary.
Do. (Takoma Park)	Washington Missionary College	Coed	
FLORIDA.			
De Land	John B. Stetson University	Coed	
Lake City	Columbia College	Coed	
Sutherland	Southern College	Coed	
Tallahassee	Florida State College for Women	Women	Mrs. S. L. Cawthon.
Winter Park	Rollins College	Coed	Lily W. Roberts, Preceptress.[2]
GEORGIA.			
Atlanta	Atlanta University (colored)	Coed	
Do	Morris Brown University (colored)	Coed	Junia M. Jordan.[3]
College Park	Cox College	Women	Alva B. Jameson.

[1] Dean of Woman's College of Delaware. [2] Adviser of women. [3] Preceptress, School of Economics.

XIX.—UNIVERSITIES AND COLLEGES—DEANS OF WOMEN—Continued.

Location.	University or college.	For women, or coeducational.	Name of dean.
GEORGIA—continued.			
Dahlonega	North Georgia Agricultural College.	Coed	
Decatur	Agnes Scott College	Women	Nannette Hopkins.
Demorest	Piedmont College	Coed	Bertha A. Hastings.[1]
Forsyth	Bessie Tift College	Women	
Gainesville	Brenau College	Women	Eva F. Pearce.
Lagrange	Lagrange Female College	Women	Jule H. Tucker.
Do	Southern Female College	Women	Miss Black.
Macon	Wesleyan Female College	Women	
Rome	Shorter College	Women	Virginia Wendell.
South Atlanta	Clark University (colored)	Coed	
HAWAII.			
Honolulu	College of Hawaii	Coed	
IDAHO.			
Caldwell	College of Idaho	Coed	
Moscow	University of Idaho	Coed	Permeal J. French.
ILLINOIS.			
Abingdon	Hedding College	Coed	Grace D. Taylor.
Aurora	Aurora College	Coed	
Bloomington	Illinois Wesleyan University	Coed	
Carthage	Carthage College	Coed	Letta Simmons.
Chicago	De Paul University	Coed	
Do	Lewis Institute	Coed	Helen D. Street.
Do	University of Chicago	Coed	Marion Talbot.
Decatur	James Millikin University	Coed	Lillian M. Walker.
Eureka	Eureka College	Coed	Lydia Wampler.
Evanston	Northwestern University	Coed	Mary R. Potter.
Ewing	Ewing College	Coed	
Galesburg	Knox College	Coed	Grace A. Stayt.
Do	Lombard College	Coed	Nelle Miller.
Greenville	Greenville College	Coed	Mrs. Amanda M. Garlock, Preceptress.
Jacksonville	Illinois College	Coed	
Do	Illinois Woman's College	Women	Margaret Taylor.
Lake Forest	Lake Forest College	Coed	Mary Hamilton.
Lebanon	McKendree College	Coed	Beatrice H. Cooper.
Lincoln	Lincoln College	Coed	
Monmouth	Monmouth College	Coed	Sarah F. Brownlee.
Naperville	Northwestern College	Coed	Clara Bleck.
Rockford	Rockford College	Women	Julia H. Gulliver, president.
Rock Island	Augustana College	Coed	
Upper Alton	Shurtleff College	Coed	G. Esther Chapin.
Urbana	University of Illinois	Coed	Ruby E. C. Mason.
Wheaton	Wheaton College	Coed	Mrs. Martha T. Garlough.
INDIANA.			
Bloomington	Indiana University	Coed	Ruby E. C. Mason.
Earlham	Earlham College	Coed	Martha Doan.
Franklin	Franklin College	Coed	Mrs. Bertha D. Smith.
Goshen	Goshen College	Coed	
Greencastle	De Pauw University	Coed	Katherine S. Alvord.
Hanover	Hanover College	Coed	
Indianapolis	Butler College	Coed	Katherine M. Graydon.
Do	Indiana Central University	Coed	
La Fayette	Purdue University	Coed	Coroline E. Shoemaker.
Merom	Union Christian College	Coed	
Notre Dame	St. Mary's College and Academy	Women	
Oakland City	Oakland City College	Coed	Mrs. Ella C. Wheatley.
Upland	Taylor University	Coed	Sadie L. Miller.
Valparaiso	Valparaiso University	Coed	Mrs. Sarah P. Kinsey.
Vincennes	Vincennes University	Coed	
IOWA.			
Ames	Iowa State College of Agriculture and Mechanic Arts.	Coed	
Cedar Falls	Iowa State Teachers College	Coed	Mrs. Marion McF. Walker.
Cedar Rapids	Coe College	Coed	Maria Leonard.

[1] Director of college women.

XIX.—Universities and Colleges—Deans of Women—Continued.

Location.	University or college.	For women, or coeducational.	Name of dean.
IOWA—continued.			
Des Moines	Des Moines College	Coed	Charlene F. Sperry.
Do	Drake University	Coed	Mrs. Mary C. Craig.
Dubuque	Dubuque College and Seminary	Coed	
Fairfield	Parsons College	Coed	Christine Hume.
Fayette	Upper Iowa University	Coed	
Grinnell	Grinnell College	Coed	Carrie L. De Nise.
Hopkinton	Lenox College	Coed	
Indianola	Simpson College	Coed	Junia L. Todd.
Iowa City	State University of Iowa	Coed	Mrs. Nellie D. Aurner.
Iowa Falls	Ellsworth College	Coed	
Mount Pleasant	Iowa Wesleyan College	Coed	Harriet L. Barber.
Mount Vernon	Cornell College	Coed	Mary L. MacCleod.
Oskaloosa	Penn College	Coed	Edith Furnas.
Pella	Central College of Iowa	Coed	Elizabeth A. Graham.
Sioux City	Morningside College	Coed	Lillian E. Dimmitt.
Storm Lake	Buena Vista College	Coed	
Tabor	Tabor College	Coed	
University Park	Central Holiness University	Coed	
KANSAS.			
Atchison	Midland College	Coed	Lydia L. Diehl.
Baldwin City	Baker University	Coed	Anne G. Wirt.
Emporia	College of Emporia	Coed	Susan M. Guild.
Highland	Highland College	Coed	
Kansas City	Kansas City University	Coed	
Lawrence	University of Kansas	Coed	Mrs. Eustace H. Brown, adviser.
Lindsborg	Bethany College	Coed	
McPherson	McPherson College	Coed	
Manhattan	Kansas State Agricultural College	Coed	Mrs. Mary P. Van Zile.
Ottawa	Ottawa University	Coed	Johanna M. Pirscher.
Salina	Kansas Wesleyan University	Coed	Caroline Matson.
Sterling	Cooper College	Coed	Althea Montgomery.
Topeka	Washburn College	Coed	Florence E. Williard.
Wichita	Fairmount College	Coed	Flora C. Clough.
Do	Friends University	Coed	No dean.
Winfield	Southwestern College	Coed	Ella E. Bernstorf.
KENTUCKY.			
Berea	Berea College	Coed	Katherine S. Bowersox.
Georgetown	Georgetown College	Coed	Mrs. M. D. McFerran.
Hopkinsville	Bethel Woman's College	Women	
Lexington	University of Kentucky	Coed	Anna J. Hamilton.
Do	Transylvania College	Coed	
Louisville	University of Louisville	Coed	Mary E. Jones, adviser.
Winchester	Kentucky Wesleyan College	Coed	
LOUISIANA.			
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.	Coed	Antoinette S. Tucker.
Clinton	Silliman Collegiate Institute	Women	
New Orleans	H. Sophie Newcomb Memorial College.	Women	
Pineville	Louisiana College	Coed	Mrs. Jones.
MAINE.			
Lewiston	Bates College	Coed	Clara L. Buswell.
Orono	University of Maine	Coed	
Waterville	Colby College	Coed	Mrs. Mary C. Cooper.
MARYLAND.			
Baltimore	Goucher College	Women	Eleanor L. Lord.
Do	Johns Hopkins University	Coed	
Do	Morgan College (colored)	Coed	Minnie McA. Pickens.
Do	Notre Dame College of Maryland	Women	Sister Mary Immaculata.
Chestertown	Washington College	Coed	
Frederick	Hood College	Women	Mrs. Ida C. Fleming.
Lutherville	Maryland College for Women	Women	
New Windsor	Blue Ridge College	Coed	Emma S. Baker, preceptress.
Westminster	Western Maryland College	Coed	Margaret M. Robinson.

XIX.—Universities and Colleges—Deans of Women—Continued.

Location.	University or college.	For women, or coeducational.	Name of dean.
MASSACHUSETTS.			
Amherst	Massachusetts Agricultural College	Coed	
Boston	Boston University	Coed	Mrs. Agnes K. Black, adviser
Do	Simmons College	Women	Sarah L. Arnold.[1]
Cambridge	Massachusetts Institute of Technology.	Coed	No dean of women.
Do	Radcliffe College	Women	Bertha M. Boody.
Lowell	Lowell Textile School	Coed	
Northampton	Smith College	Women	Ada L. Comstock.
Norton	Wheaton College	Women	Ida J. Everett.
South Hadley	Mount Holyoke College	Women	Florence Purington.
Tufts College	Tufts College	Coed	Mrs. Caroline S. Davies.[2]
Wellesley	Wellesley College	Women	Alice V. Waite.
MICHIGAN.			
Adrian	Adrian College	Coed	Mrs. Cora Davis.
Albion	Albion College	Coed	Mrs. Helen Knappen-Scripps.
Alma	Alma College	Coed	Camelia I. Buswell.
Ann Arbor	University of Michigan	Coed	Mrs. Myra B. Jordan.
East Lansing	Michigan Agricultural College	Coed	Annie Howard, adviser.
Hillsdale	Hillsdale College	Coed	Cora A. Pickett.
Holland	Hope College	Coed	Mrs. Winnifred H. Durfee.
Kalamazoo	Kalamazoo College	Coed	Lucile Powell.
Olivet	Olivet College	Coed	Mrs. E. R. Latham.
MINNESOTA.			
Minneapolis	University of Minnesota	Coed	Gertrude Beggs.[3]
Northfield	Carleton College	Coed	Mary L. Benton.[4]
Do	St. Olaf College	Coed	Gertrude M. Hilleboe.
St. Paul	College of St. Catherine	Women	Sister Antonia.
Do	Hamline University	Coed	
Do	Macalester College	Coed	C. W. Williams.
St. Peter	Gustavus Adolphus College	Coed	Clara Tederstrom, preceptress
Winona	College of St. Teresa	Women	Mary A. Malloy.
MISSISSIPPI.			
Agricultural College	Mississippi Agricultural and Mechanical College.	Coed	
Blue Mountain	Blue Mountain College	Women	Mrs. M. L. Berry, lady principal.
Brookhaven	Whitworth Female College	Women	
Columbus	Mississippi Industrial Institute and College.	Women	
Grenada	Grenada College	Women	
Holly Springs	Rust College (colored)	Coed	Mary L. Brayman.
Jackson	Belhaven College	Women	Sallie McLean.
Do	Millsaps College	Coed	
Meridian	Meridian College	Coed	Mrs. L. B. Haynes.
University	University of Mississippi	Coed	Mrs. E. B. Eatman.
MISSOURI.			
Cameron	Missouri Wesleyan College	Coed	Mrs. Sarah C. De Bra.
Canton	Culver-Stockton College	Coed	Mrs. E. R. Redd.
Columbia	University of Missouri	Coed	Eva Johnston, adviser.
Fayette	Central College	Coed	
Lexington	Central Female College	Women	
Marshall	Missouri Valley College	Coed	
Parkville	Park College	Coed	Francis B. Jones.
St. Louis	Washington University	Coed	Martha G. McCaulley.
Springfield	Drury College	Coed	Luella C. Carson.
Tarkio	Tarkio College	Coed	
Warrenton	Central Wesleyan College	Coed	
MONTANA.			
Bozeman	Montana College of Agriculture and Mechanic Arts.	Coed	Una B. Herrick.
Butte	Montana State School of Mines	Coed	
Missoula	University of Montana	Coed	Mrs. K. W. Jameson.

[1] On leave; Marion E. Park, acting dean.
[2] Dean of Jackson College for Women.
[3] Katharine Ball, vocational adviser for women.
[4] On leave; Edith Denise, acting dean.

XIX.—Universities and Colleges—Deans of Women—Continued.

Location.	University or college.	For women, or coeducational.	Name of dean.
NEBRASKA.			
Bellevue	Bellevue College	Coed	Minnie L. Carter.
Bethany	Cotner University	Coed	Grace E. Young, acting.
College View	Union College	Coed	Lillian Danielson.
Crete	Doane College	Coed	Helen Meston.
Grand Island	Grand Island College	Coed	Elizabeth A. Hall.
Hastings	Hastings College	Coed	Mayme I. Logsdon.
Lincoln	University of Nebraska	Coed	Amanda H. Heppner, acting.
Omaha	University of Omaha	Coed	
University Place	Nebraska Wesleyan University	Coed	
York	York College	Coed	Mrs. Sadie Rector.
NEVADA.			
Reno	State University of Nevada	Coed	Margaret E. Mack, acting.
NEW HAMPSHIRE.			
Durham	New Hampshire College of Agriculture and Mechanic Arts.	Coed	Helen Knowlton.
NEW JERSEY.			
Convent Station	College of St. Elizabeth	Women	Sister Mary P. Kelligar.[1]
Kenilworth	Upsala College	Coed	
NEW MEXICO.			
Albuquerque	University of New Mexico	Coed	
Socorro	New Mexico School of Mines	Coed	
State College	New Mexico College of Agriculture and Mechanic Arts.	Coed	Mary F. Winningham, adviser.
NEW YORK.			
Albany	New York State College for Teachers.	Coed	Anna E. Pierce.
Alfred	Alfred University	Coed	Mabel I. Hart, adviser.
Aurora	Wells College	Women	Mrs. Anna A. Piutti.
Brooklyn	Adelphi College	Coed	Anna E. Harvey.
Buffalo	University of Buffalo	Coed	
Canton	St. Lawrence University	Coed	Sarah DeM. Plaisance.
Elmira	Elmira College	Women	M. Anstice Harris.
Geneva	Hobart College	Coed	Anne D. Blitz.[2]
Ithaca	Cornell University	Coed	Georgia L. White, adviser.
New Rochelle	College of New Rochelle	Women	
New York	Barnard College	Women	Virginia C. Gildersleeve.
Do	Hunter College of the City of New York.	Women	Annie E. Hickinbottom.
Do	New York University	Coed	Aristine P. Munn-Recht, adviser.
Do	Teachers College	Coed	Lucetta Daniell, social director.
Poughkeepsie	Vassar College	Women	Ella McCaleb.[3]
Rochester	University of Rochester	Coed	Annette G. Munro.[4]
Syracuse	Syracuse University	Coed	Jean M. Richards.
Troy	Russell Sage College of Practical Arts.	Women	Katherine M. Kellas.
NORTH CAROLINA.			
Chapel Hill	University of North Carolina	Coed	Mrs. Thomas W. Lingle, adviser.
Charlotte	Queens College	Women	
Durham	Trinity College	Coed	Martha Buchanan.
Elon College	Elon College	Coed	Jean Demuth.
Greensboro	Greensboro College for Women	Women	Mrs. Frank Siler.
Guilford College	Guilford College	Coed	H. Louisa Osborne.
Hickory	Lenoir College	Coed	
Raleigh	Meredith College	Women	Rosa C. Paschal.
Do	Peace Institute	Women	
Do	St. Mary's School	Women	Lucy G. Hester, lady principal.
Do	Shaw University (colored)	Coed	Charlotte Murray.
Red Springs	Flora Macdonald College	Women	Mary Johnston.
Salisbury	Livingston College (colored)	Coed	
Wilson	Atlantic Christian College	Coed	
Winston-Salem	Salem Academy and College	Women	Ellen Yerrington.

[1] President.
[2] Dean of William Smith College for Women.
[3] Jean C. Palmer, head warden.
[4] Dean of the College for Women.

XIX.—UNIVERSITIES AND COLLEGES—DEANS OF WOMEN—Continued.

Location.	University or college.	For women, or coeducational.	Name of dean.
NORTH DAKOTA.			
Agricultural College	North Dakota Agricultural College	Coed	Katherine Jensen.[1]
Fargo	Fargo College	Coed	Clara J. Emerson.
Jamestown	Jamestown College	Coed	Eva A. Parslow.
University	University of North Dakota	Coed	Ella L. Fulton.
OHIO.			
Ada	Ohio Northern University	Coed	
Akron	Municipal University of Akron	Coed	Mrs. Elizabeth A. Thompson.
Alliance	Mount Union College	Coed	Florence Nicholson.
Ashland	Ashland College	Coed	Mary M. Billman.
Athens	Ohio University	Coed	Irma E. Voigt.
Berea	Baldwin-Wallace College	Coed	Mrs. Mame A. Condit.
Bluffton	Bluffton College	Coed	Edith McPeake.
Cedarville	Cedarville College	Coed	Mary Ervin.
Cincinnati	University of Cincinnati	Coed	Louceu Pattee.
Cleveland	Western Reserve University	Coed	Helen M. Smith.[2]
Columbus	Ohio State University	Coed	Caroline M. Breyfogle.
Defiance	Defiance College	Coed	Adelia Wilson.
Delaware	Ohio Wesleyan University	Coed	Cyrus B. Austin.[3]
Findlay	Findlay College	Coed	Ethel Fox.
Granville	Denison University	Coed	Clara M. Brumback.[4]
Hiram	Hiram College	Coed	
Marietta	Marietta College	Coed	
New Athens	Franklin College	Coed	Maud Elder.
New Concord	Muskingum College	Coed	Anna K. Moore.
Oberlin	Oberlin College	Coed	Florence M. Fitch.[5]
Oxford	Miami University	Coed	Elizabeth Hamilton.
Do	Oxford College for Women	Women	
Do	Western College for Women	Women	Mary A. Sawyer.
Painesville	Lake Erie College	Women	Lilian A. Brownfield.
Rio Grande	Rio Grande College	Coed	
Springfield	Wittenberg College	Coed	
Tiffin	Heidelberg University	Coed	Mary I. Park.
Toledo	Toledo University	Coed	Mrs. S. B. Hulliday.
Westerville	Otterbein University	Coed	Cora A. McFadden.
Wilberforce	Wilberforce University (colored)	Coed	Mrs. Josephine Washington.
Wilmington	Wilmington College	Coed	Faith Austin.
Wooster	College of Wooster	Coed	Amelia Doddridge.
Yellowsprings	Antioch College	Coed	
OKLAHOMA.			
Chickasha	Oklahoma College for Women	Women	
East Enid	Phillips University	Coed	Beulah B. Boggess.
Guthrie	Methodist University of Oklahoma	Coed	Alberta B. Jones.
Kingfisher	Kingfisher College	Coed	
Norman	University of Oklahoma	Coed	Elizabeth Jordan, adviser.
Stillwater	Oklahoma Agricultural and Mechanical College.	Coed	Ruth Michaels.[1]
Tulsa	Henry Kendall College	Coed	
OREGON.			
Albany	Albany College	Coed	Winslow Hutchinson.
Corvalis	Oregon Agricultural College	Coed	Mrs. Mary E. Fawcett.
Eugene	University of Oregon	Coed	Louise Ehrmann.
Forest Grove	Pacific University	Coed	Mary F. Farnham.
McMinnville	McMinnville College	Coed	Isabel M. Grover.
Newberg	Pacific College	Coed	
Portland	Reed College	Coed	
Salem	Willamette University	Coed	Alice Mae Roberts.
PENNSYLVANIA.			
Allentown	Allentown College for Women	Women	Mrs. Julia B. Hensel.
Annville	Lebanon Valley College	Coed	Reba F. Lehman.
Beaver	Beaver College	Women	Alta M. Bailey.
Beaver Falls	Geneva College	Coed	Helen E. McClintock.
Bethlehem	Moravian Seminary and College for Women.	Women	
Bryn Mawr	Bryn Mawr College	Women	Helen H. Taft.[6]

[1] Head of department of home economics.
[2] Dean of College for Women.
[3] Kathryn S. McLean, associate dean.
[4] Acting dean of Shepardson College.
[5] Anna B. Doerschuk, associate dean.
[6] Dean of college and adviser to undergraduates; Isabel Maddison, adviser for graduate students.

XIX.—Universities and Colleges—Deans of Women—Continued.

Location.	University or college.	For women, or coeducational.	Name of dean.
PENNSYLVANIA—contd.			
Carlisle	Dickinson College	Coed	
Chambersburg	Wilson College	Women	Harriet R. Congdon.
Collegeville	Ursinus College	Coed	Mrs. C. B. Tower.
Gettysburg	Pennsylvania College	Coed	
Greenville	Thiel College	Coed	Signe I. Swensson.
Grove City	Grove City College	Coed	Mrs. Lois Cory-Thompson.
Huntingdon	Juniata College	Coed	
Lewisburg	Bucknell University	Coed	Anna R. Carey.
Meadville	Allegheny College	Coed	Alice H. Spalding.
Mechanicsburg	Irving Female College	Women	Katherine G. Wheelock.
Myerstown	Albright College	Coed	Mrs. Luella D. Mohn, preceptress.
New Wilmington	Westminster College	Coed	Sarah J. Knott.
Philadelphia	Drexel Institute	Coed	Mabel D. Cherry.
Do	Dropsie College	Coed	
Do	Temple University	Coed	Laura H. Carnell.
Do	University of Pennsylvania	Coed	Frank P. Graves.[1]
Pittsburgh	Carnegie Institute of Technology	Coed	Mary B. Breed.[2]
Do	Pennsylvania College for Women	Women	Florence K. Root.
Do	University of Pittsburgh	Coed	Pearl Marshall.[3]
Selinsgrove	Susquehanna University	Coed	
State College	Pennsylvania State College	Coed	Lucretia V. T. Simmons.
Swarthmore	Swarthmore College	Coed	Edna H. Richards.
Waynesburg	Waynesburg College	Coed	Sarah E. Martin.
PORTO RICO.			
San Juan	University of Porto Rico	Coed	
RHODE ISLAND.			
Kingston	Rhode Island State College	Coed	Bessie E. Bemis.
Providence	Brown University	Coed	Lida S. King.[4]
SOUTH CAROLINA.			
Clinton	Presbyterian College of South Carolina.	Coed	
College Place	Columbia College	Women	Lucile Johnson.
Columbia	Benedict College (colored)	Coed	Frances Schuyler.
Do	Chicora College for Women	Women	
Do	University of South Carolina	Coed	Mrs. B.L.Parkinson, matron.
Due West	Erskine College	Coed	
Do	Woman's College of Due West	Women	
Greenville	Greenville Woman's College	Women	
Greenwood	Lander College	Women	
Hartsville	Coker College for Women	Women	
Newberry	Newberry College	Coed	
Spartanburg	Converse College	Women	Mrs. Sarah M. Huber.
SOUTH DAKOTA.			
Brookings	South Dakota State College of Agriculture and Mechanic Arts.	Coed	Miriam Gerlach, adviser.
Huron	Huron College	Coed	Mary E. Scruby.
Mitchell	Dakota Wesleyan University	Coed	Mame L. Ogin.
Rapid City	State School of Mines	Coed	
Sioux Falls	Sioux Falls College	Coed	Cecil Stone.
Vermilion	University of South Dakota	Coed	Anne Henley.
Yankton	Yankton College	Coed	Ruth E. Reed.
TENNESSEE.			
Chattanooga	University of Chattanooga	Coed	Mrs. Flora G. Hart, preceptress.
Greenville	Tusculum College	Coed	Edith L. Stetson.[5]
Harrogate	Lincoln Memorial University	Coed	Vryling W. Buffum.
Jackson	Union University	Coed	
Jefferson City	Carson and Newman College	Coed	
Knoxville	Knoxville College (colored)	Coed	Margaret Beveridge.[6]
Do	University of Tennessee	Coed	Caroline Carpenter.
Lebanon	Cumberland University	Coed	
McKenzie	Bethel College	Coed	

[1] Dean of the School of Education; no dean of women appointed for the university.
[2] Dean of Margaret Morrison Carnegie School.
[3] Head of home economics course.
[4] Dean of the Women's College in Brown University.
[5] Director of home economics.
[6] Superintendent farm, woman's division.

XIX.—UNIVERSITIES AND COLLEGES—DEANS OF WOMEN—Continued.

Location.	University or college.	For women, or coeducational.	Name of dean.
TENNESSEE—continued.			
Maryville	Maryville College	Coed	Mary E. Caldwell.
Murfreesboro	Tennessee College	Women	
Nashville	Fisk University (colored)	Coed	Mrs. Ella W. Brown.
Do	George Peabody College for Teachers.	Coed	
Do	Vanderbilt University	Coed	
Spencer	Burritt College	Coed	
Washington College	Washington College	Coed	
TEXAS.			
Abilene	Simmons College	Coed	Rosa B. Breedlove.
Austin	University of Texas	Coed	Mrs. Helen M. Kirby.
Belton	Baylor Female College	Women	Evaline Campbell.
Brownwood	Daniel Baker College	Coed	
Do	Howard Payne College	Coed	
Dallas	Southern Methodist University	Coed	Mrs. B. H. Guilbeau.
Denton	College of Industrial Arts	Women	Lina Perlitz.
Fort Worth	Texas Woman's College	Women	Ada B. Stapleton.
Do	Texas Christian University	Coed	E. W. McDiarmid.
Georgetown	Southwestern University	Coed	Laura Kuykendall.
Houston	Rice Institute	Coed	Mrs. Sara Stratford, adviser.
Tehuacana	Westminster College	Coed	
Waco	Baylor University	Coed	Mrs. T. H. Claypool.
Waxahachie	Trinity University	Coed	
UTAH.			
Logan	Agricultural College of Utah	Coed	Mrs. George R. Hill, adviser.
Salt Lake City	University of Utah	Coed	Lucy M. Van Cott.
VERMONT.			
Burlington	University of Vermont and State Agricultural College.	Coed	Mrs. Mary B. Stetson, adviser.
Middlebury	Middlebury College	Coed	Eleanor S. Ross.
VIRGINIA.			
Abingdon	Martha Washington College	Women	
Bridgewater	Bridgewater College	Coed	
Hollins	Hollins College	Women	Mary Williamson.[1]
Lynchburg	Randolph-Macon Woman's College.	Women	Meta Glass.[2]
Manassas	Eastern College	Coed	
Richmond	Richmond College	Coed	May L. Keller.[3]
Salem	Elizabeth College	Women	Irene B. Palmer.
Sweet Briar	Sweet Briar College	Women	Emilie W. McVea.[4]
WASHINGTON.			
Pullman	State College of Washington	Coed	Rhoda M. White.
Seattle	University of Washington	Coed	Ethel M. Coldwell.
Tacoma	College of Puget Sound	Coed	Mrs. Stella T. Patterson.
Walla Walla	Whitman College	Coed	Helen M. Burr.
WEST VIRGINIA.			
Bethany	Bethany College	Coed	Mrs. Anna R. Bourne.
Buckhannon	West Virginia Wesleyan College	Coed	Edna Smith.
Elkins	Davis and Elkins College	Coed	
Morgantown	West Virginia University	Coed	Susan M. Moore.
WISCONSIN.			
Appleton	Lawrence College	Coed	Maud Gaeckler.
Beloit	Beloit College	Coed	Mrs. Gladys Sleeper
Madison	University of Wisconsin	Coed	Louise F. Nardin.
Milton	Milton College	Coed	
Milwaukee	Milwaukee-Downer College	Women	Mina Kerr.
Plymouth	Mission House	Coed	Josephine King, adviser.
Ripon	Ripon College	Coed	
Sinsinawa	St. Clara College and Academy	Women	Sister M. Clementine.
Waukesha	Carroll College	Coed	Mrs. Agnes E. Tucker, acting.
WYOMING.			
Laramie	University of Wyoming	Coed	Mrs. Emma H. Knight, adviser.

[1] Chairman Faculty Committee on Student Government.
[2] On leave.
[3] Dean of Westhampton College.
[4] President.

XX.—Junior Colleges.

Location.	Name of institution.	President.
Marion, Ala	Marion Institute	Hopson O. Murfee, LL. D.
Eureka Springs, Ark	Crescent College	Richard R. Thompson.
Auburn, Cal	Junior College[1]	J. F. Engle, Ph. D.
Azusa, Cal	Junior College[1]	E. R. Hulbirt, dean.
Bakersfield, Cal	Junior College[1]	Paul Vandereike, dean.
Fresno, Cal	Junior College[1]	Walter O. Smith, A. M.
Fullerton, Cal	Junior College[1]	W. T. Boyce, A. M., dean.
Los Angeles, Cal	Junior College (Hollywood H. S.)	W. H. Snyder, D. Sc.
Los Angeles, Cal	Junior College (Polytechnic H. S.)	Willis A. Dunn, A. M.
Palo Alto, Cal	Junior College[1]	Roy L. Wilbur, A. M.
Pomono, Cal	Junior College[1]	W. A. Bartlett, A. M., dean.
Sacramento, Cal	Junior College[1]	E. J. Berringer, M. L.
San Diego, Cal	Junior College[1]	Mott H. Arnold, A. M.
San Luis Obispo, Cal	Junior College[1]	Richard H. Platt, A. B., dean.
Santa Ana, Cal	Junior College[1]	D. K. Hammond, A. B.
Santa Barbara, Cal	Junior College[1]	Eldon Ford, A. B., dean.
Yreka, Cal	Junior College[1]	E. L. Van Dellen, A. M.
Cuthbert, Ga	Andrew College	F. G. Branch, B. S.
McRae, Ga	South Georgia College	G. W. Hutchison, A. B.
Young Harris, Ga	Young L. G. Harris College	John L. Hall, A. B.
Pocatello, Idaho	Idaho Technical Institute	Miles F. Reed, A. M.
Aledo, Ill	William and Vashti College	Roy F. Swift, Ph. D.
Carlinville, Ill	Blackburn College	Wm. M. Hudson, D. D.
Chicago, Ill	Crane Junior College	Wm. J. Bartholf.
Godfrey, Ill	Monticello Seminary	Harriet R. Congdon, A. M.
Joliet, Ill	Junior College[1]	Stanley Brown, LL. D.
Mount Carroll, Ill	Frances Shimer School	Wm. P. McKee, A. M.
Peoria, Ill	Bradley Polytechnic Institute	Theodore C. Burgess, Ph. D.
Lamoni, Iowa	Graceland College	George N. Briggs, A. B.
Holton, Kans	Junior College[1]	Emery W. Leamer, A. B.
Danville, Ky	Kentucky College for Women	M. M. Allen, D. D.
Lexington, Ky	Hamilton College for Women	Thomas A. Hendrick, A. M.
Lexington, Ky	Sayre College	A. S. Venable, A. B.
Russellville, Ky	Logan Female College	George H. Crowell, Ph. D.
Mansfield, La	Mansfield Female College	R. E. Bobbitt, B. S.
Detroit, Mich	Junior College[1]	David MacKenzie, A. M.
Grand Rapids, Mich	Junior College[1]	Jesse B. Davis, A. M.
Hibbing, Minn	Junior College[1]	G. W. Willett, A. M.
Rochester, Minn	Junior College[1]	James B. Mack, A. M.
Holly Springs, Miss	Mississippi Synodical College	T. W. Raymond, D. D.
Albany, Mo	Palmer College	E. A. Watkins, D. D.
Columbia, Mo	Christian College	Mrs. L. W. St. Claire-Moss, A. B.
Columbia, Mo	Stephns College	James M. Wood, A. M.
Fayette, Mo	Howard Payne College	Henry E. Stout, A. B.
Fulton, Mo	Synodical College for Girls	John James, A. B.
Fulton, Mo	William Woods College	Joseph A. Serena, A. B.
Glasgow, Mo	Pritchett College	Oscar Dahlene, M. S.
Kansas City, Mo	Kansas City Polytechnic Institute	B. M. Stigall, A. M.
Mexico, Mo	Hardin College	Z. J. Edge, D. D.
Morrisville, Mo	Scarritt-Morrisville College	A. M. Norton, A. M.
Nevada, Mo	Cottey College	Mrs. V. A. C. Stockard, A. M.
St. Charles, Mo	Lindenwood College	John L. Roemer, D. D.
St. Louis, Mo	Forest Park College	Mrs. Anna S. Cairns.
Lenoir, N. C	Davenport College	James B. Craven.
Louisburg, N. C	Louisburg College	Franklin S. Love, A. M.
Weaverville, N. C	Weaver College	Eugene Blake, D. D.
Milton, Oreg	Columbia College	H. S. Shangle.
Jackson, Tenn	Memphis Conference Female Institute	E. R. Naylor, A. B.
Madisonville, Tenn	Hiwassee College	J. E. Lowry, A. M.
Pulaski, Tenn	Martin College	Wm. T. Wynn, A. B.
Claredon, Tex	Claredon College	G. S. Slover, A. M.
Decatur, Tex	Decatur Baptist College	J. L. Ward, A. M.
Greenville, Tex	Burleson College	Basil E. Masters, A. B.
Greenville, Tex	Wesley College	S. E. Green, A. B.
Jacksonville, Tex	Alexander College	R. G. Boyer, A. M.
Meridian, Tex	Meridian College	G. F. Winfield, A. M.
San Antonio, Tex	Westmoorland College	J. W. Repass, A. M.
Sherman, Tex	North Texas College	Edwin Kidd.
Stamford, Tex	Stamford College	
Terrell, Tex	Texas Military College	Louis C. Perry, Ph. D.
Thorp Springs, Tex	Thorp Springs Christian College	W. F. Ledlow, A. M.
Abingdon, Va	Stonewall Jackson College	John R. Dobyns, LL. D.
Blackstone, Va	Blackstone College for Girls	W. Asbury Christian. D. D.
Bristol, Va	Sullins College	W. E. Martin, Ph. D.
Bristol, Va	Virginia Intermont College	H. G. Noffsinger, A. M.
Daleville, Va	Daleville College	T. S. Moherman, D. D.
Danville, Va	Averette College	C. E. Crosland, A. B.
Marion, Va	Marion College	C. Brown Cox, A. M.
Petersburg, Va	Southern College	Arthur K. Davis, A. M.
Roanoke, Va	Virginia College	Mattie P. Harris.
Staunton, Va	Mary Baldwin College	Marianna P. Higgins.
Everett, Wash	Junior College[1]	W. J. Marquis.
Barboursville, W. Va	Morris Harvey College	U. V. W. Darlington, D. D.
Louisburg, W. Va	Louisburg Seminary	Robert H. Adams, A. M.

[1]Part of public school system.

XXI.—Presidents and Secretaries of Boards of Trustees of Universities and Colleges.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
ALABAMA.			
Athens	Athens College for Young Women.	W. T. Sanders	H. B. Malone.
Auburn	Alabama Polytechnic Institute	Gov. Charles Henderson.	Lucile Burton.
Birmingham	Birmingham College	R. S. Munger	E. M. Glenn.
Do	Howard College	James B. Ellis	W. J. Waldrop.
Greensboro	Southern University	J. S. Frazer	E. A. Dannelly.
Marion	Judson College	Ernest Lamar	T. T. Daughdrill.
Montgomery	Women's College of Alabama	M. W. Swartz, Ph. D.	J. M. Donnelly, D. D.
St. Bernard	St. Bernard College	Bernard Menges, O.S.B	Charles Fries, O. S. B.
Spring Hill	Spring Hill College	E. Cummings, S. J.	John J. Navin, S. J.
Tuscaloosa	Central Female College	H. B. Foster	John T. Bealle.
University	University of Alabama	Gov. Charles Henderson.	Robison Brown.
ARIZONA.			
Tucson	University of Arizona	William V. Whitmore	William Jennings Bryan, jr.
ARKANSAS.			
Arkadelphia	Henderson-Brown College	Rev. James M. Workman.	Leslie Goodloe.
Do	Ouachita College		
Batesville	Arkansas College	James P. Coffin	J. L. Boggs.
Clarksville	Arkansas Cumberland College	Wiley L. Harie	W. H. H. Shibley.
Conway	Central College	J. P. Runyan, M. D.	J. F. Jones.
Do	Hendrix College	James Thomas	V. D. Hill.
Fayetteville	University of Arkansas	Hon. Charles H. Brough.	W. H. Cravens.
CALIFORNIA.			
Berkeley	University of California[1]	Hon. William D. Stephens.	Ralph P. Merritt.
Claremont	Pomona College	George W. Marston	Charles B. Sumner.
Los Angeles	Occidental College	D. B. Gamble	W. S. Young.
Do	St. Vincents College		
Do	University of Southern California.	Bishop Adna W. Leonard.	A. E. Pomeroy.
Mills College	Mills College	George C. Edwards	Louisa P. Johnston.
Oakland	St. Mary's College	James E. Curran	A. A. McKinnon.
Pasadena	Throop College of Technology	Arthur H. Fleming	Edward C. Barrett.
Redlands	University of Redlands	Mattison B. Jones	J. W. Curtis.
St. Helena	Pacific Union College	E. E. Andross	Claude Conard.
San Francisco	St. Ignatius University	Patrick J. Foote, S. J.	D. J. Mahoney, S. J.
San Jose	College of the Pacific	Rolla V. Watt	H. E. Milnes.
Santa Clara	University of Santa Clara	Walter F. Thornton, S. J.	Joseph W. Riordan, S. J.
Stanford University	Leland Stanford Junior University.	William M. Newhall	Leon Sloss.
Whittier	Whittier College	William V. Coffin	Lydia J. Jackson.
COLORADO.			
Boulder	University of Colorado[1]	George Norlin, acting president.	Frank H. Wolcott.
Colorado Springs	Colorado College		Willis L. Armstrong.
Denver	College of the Sacred Heart	J. J. Brown	W. J. Fitzgerald.
Do	University of Denver	William G. Evans	Frost Craft.
Fort Collins	Colorado Agricultural College	A. A. Edwards	L. M. Taylor.
Golden	Colorado School of Mines	F. G. Willis	James T. Smith.
Greeley	Colorado State Teachers College	H. V. Kepner	A. J. Park.
Montclaire	Colorado Woman's College	A. H. Stockham	Rufus G. Gentry.
CONNECTICUT.			
Hartford	Trinity College	Flavel S. Luther	Edgar F. Waterman.
Middletown	Wesleyan University	John C. Clark	David G. Downey.
New Haven	Yale University	Arthur Twining Hadley.	Anson Phelps Stokes.
New London	Connecticut College for Woman	Benjamin T. Marshall	Elizabeth C. Wright.
Storrs	Connecticut Agricultural College	Gov. Marcus H. Holcomb, ex-officio.	O. F. King.
DELAWARE.			
Newark	Delaware College	Henry B. Thompson	Charles B. Evans.

[1] Board of regents

XXI.—Presidents and Secretaries of Boards of Trustees of Universities and Colleges—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
DISTRICT OF COLUMBIA.			
Washington	American University	Benjamin F. Leighton	Charles W. Baldwin.
Do	Catholic University of America	James Cardinal Gibbons.	Right Rev. J. F. Regan Canevin.
Do	Gallaudet College	Percival Hall	Ulysses G. B. Pierce.
Do	Georgetown University	John B. Creeden, S. J.	Edmund A. Walsh, S. J.
Do	George Washington University	John Bell Larner, chairman.	Elmer Louis Kayser.
Do	Howard University (colored)	Stanton J. Peelle	George W. Cook.
Do	St. John's College	Brother Philip	Brother Denis.
Do	Trinity College	James Cardinal Gibbons.	Sister Gertrude.
FLORIDA.			
De Land	John B. Stetson University	John B. Stetson, jr.	Silas B. Wright.
Gainesville	University of Florida [1]	J. L. Earman	Bryan Mack.
Lake City	Columbia College	Hon. J. S. Blitch	Rev. Dr. W. L. G. Mahon.
Sutherland	Southern College	J. B. Mitchel	L. W. Moore.
Tallahassee	Florida State College for Women.	Joe L. Farman, chairman.	Bryan Mack.
Winter Park	Rollins College	C. H. French	W. R. O'Neal.
GEORGIA.			
Athens	University of Georgia	Henry D. McDaniel	T. W. Reed.
Atlanta	Atlanta University (colored)	Edward T. Ware	William B. Matthews.
Do	Georgia School of Technology	N. E. Harris	James S. Akers.
Do	Morehouse College (colored)	John F. Purser	E. R. Carter.
Do	Morris Brown University (colored).	William A. Fountain	William D. Johnson.
College Park	Cox College	H. M. Willett, chairman.	E. C. James.
Cuthbert	Andrew College	J. B. Wight	C. W. Curry.
Dahlonega	North Georgia Agricultural College.	W. B. McCants	R. [illegible] Baker.
Decatur	Agnes Scott College	J. K. Orr, chairman	F. [illegible] Gaines.
Demorest	Piedmont College	Philip F. Moxom	G. [illegible] Butler.
Forsyth	Bessie Tift College	O. H. B. Bloodworth	Samuel Rutherford
Gainesville	Brenau College	H. H. Perry	J. [illegible] Hosch.
Lagrange	Lagrange College	John M. Barnard	Frank Harwell.
Do	Southern Female College	L. J. Render	R. L. Rentier.
Macon	Mercer University	W. B. Hardman	E. S. Davis.
Do	Wesleyan Female College	W. N. Ainsworth	George B. Jewett.
Oxford	Emory University	Asa G. Candler	W. D. Thomson.
Rome	Shorter College	J. P. Cooper	W. M. Harbin.
South Atlanta	Clark University (colored)	F. D. Leete	W. H. Crogman.
HAWAII.			
Honolulu	College of Hawaii	W. R. Farrington	A. L. Dean.
IDAHO.			
Caldwell	College of Idaho	David A. Clemens, chairman.	L. S. Dille.
Moscow	University of Idaho [2]	Evan Evans	J. A. Keefer.
ILLINOIS.			
Abingdon	Hedding College	C. F. W. Smith	W. H. Craine.
Aledo	William and Vashti College	Henry E Burgess	David A Hebel.
Alton	Shurtleff College	A. A. Curry	John Leverett.
Aurora	Aurora College	James R. Singleterry	William J. Watson.
Bloomington	Illinois Wesleyan University	Sain Welty	F. M. Austin.
Bourbonnais	St. Viator College	J. P. O'Mahoney, C. S. V.	W. J. Bergin, C. S. V.
Carlinville	Blackburn College	Ira W. Allen	Thomas Rinaker.
Carthage	Carthage College	C. H. Boyer	H. C. Sprick.
Chicago	Armour Institute of Technology	J. Ogden Armour	Frederick U. Smith.
Do	De Paul University	F. X. McCabe, C. M.	D. J. McHugh, C. M.
Do	Lewis Institute	La Verne Noyes	Charles S. Cutting.
Do	Loyola University	John B. Furay, S. J.	Albert Esterman, S. J.
Do	University of Chicago	Martin A. Ryerson	J. Spencer Dickerson.
Decatur	James Millikin University	W. J. Darby	H. E. Starkey.
Eureka	Eureka College	T. J. McGuire	L. O. Lehman

[1] Board of control. [2] State board of education and board of regents of University of Idaho.

XXI.—PRESIDENTS AND SECRETARIES OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
ILLINOIS—continued.			
Evanston	Northwestern University	James A. Patten	Frank Philip Crandon.
Ewing	Ewing College	J. D. Hooker	F. L. Karn.
Galesburg	Knox College	W. E. Simonds, acting president	Alvah S. Green.
Do	Lombard College	Lyman McCarl	Ralph M. Atterbury
Godfrey	Monticello Seminary	Edward P. Wade	Charles A. Caldwell.
Greenville	Greenville College	Franklin H. Ashcraft.	S. W. Andrews, jr.
Jacksonville	Illinois College	Andrew Russel	Carl E. Black.
Do	Illinois Woman's College	T. J. Pitner	Joseph R. Harker.
Knoxville	St. Mary's School	M. Edward Fawcett	Charles W. Leffingwell.
Lake Forest	Lake Forest College	Clayton Mark	John H. S. Lee.
Lebanon	McKendree College	Hon. Charles S. Deneen	James C. Dolley.
Lincoln	Lincoln College	J. E. Miller	J. H. Boyd.
Monmouth	Monmouth College	Thomas H. McMichael	Ivory Quinby.
Mount Carroll	Frances Shimer School		William P. McKee.
Naperville	Northwestern College	G. Heinmiller	E. M. Spreng.
Peoria	Bradley Polytechnic Institute	John M. Niehaus	W. W. Hammond.
Rockford	Rockford College	Edward P. Lathrop	George O. Forbes.
Rock Island	Augustana College	Joseph A. Anderson	Theodore Ekblad.
Urbana	University of Illinois	William L. Abbott	H. E. Cunningham.
Wheaton	Wheaton College	Charles A. Blanchard	F. W. Smith.
INDIANA.			
Bloomington	Indiana University	Theodore F. Rose	John W. Cravens.
Collegeville	St. Joseph's College	George Hindelang, C. PP. S.	Ignatius Wagner, C. PP. S.
Crawfordsville	Wabash College	Albert D. Thomas	Theodore H. Ristine.
Earlham	Earlham College	Amos K. Hollowell	Mary A. Stubbs.
Fort Wayne	Concordia College	Rev. A. Lange, chairman.	Rev. W. E. Moll.
Franklin	Franklin College	Grafton Johnson	Will A. Burton.
Goshen	Goshen College	H. F. Reist	D. D. Miller.
Greencastle	De Pauw University	Hugh Dougherty	H. H. Hornbrook.
Hanover	Hanover College	Jasper W. La Grange	R. S. Lawrence.
Indianapolis	Butler College	Hilton U. Brown	Barton W. Cole.
Do	Indiana Central University	J. W. Lake	A. D. Smith.
Lafayette	Purdue University	Joseph D. Oliver	Edward A. Ellsworth.
Merom	Union Christian College	C. B. Hershey	Gault W. Pleasant.
Moores Hill	Moores Hill College	E. V. Hawkins	M. A. Farr.
Notre Dame	St. Mary's College and Academy.	Mother M. Perpetua	Mother M. Aquina.
Do	University of Notre Dame	Andrew Morrissey, Ph. D.	William Conner.
Oakland City	Oakland City College	D. B. Montgomery	J. P. Cox.
Terre Haute	Rose Polytechnic Institute[1]	W. C. Ball	Paul N. Bogart.
Upland	Taylor University	John C. White, D. D.	H. T. Connelly.
Valparaiso	Valparaiso University	Henry B. Brown	John E. Roessler.
Vincennes	Vincennes University	W. M. Hindman	W. B. Robinson.
IOWA.			
Ames	Iowa State College of Agriculture and Mechanic Arts.	D. D. Murphy	W. H. Gemmill.
Cedar Falls	Iowa State Teachers College	do	Do.
Cedar Rapids	Coe College	E. R. Burkhalter	John S. Ely.
Clinton	Wartburg College	G. A. Fandrey	H. Breuckner.
Decorah	Luther College	C. K. Preus	O. L. Olson.
Des Moines	Des Moines College	J. R. Vaughan	Nelson Royal.
Do	Drake University	Keith Vawter, chairman.	George A. Jewett.
Dubuque	Dubuque College		Albert S. Peikert.
Fairfield	Parsons College	Archibald Cardle, D.D.	Charles J. Fulton.
Fayette	Upper Iowa University	N. A. Mershon	C. R. Carpenter.
Grinnell	Grinnell College	John H. T. Main	H. W. Somers.
Hopkinton	Lenox College		W. H. Ensign.
Indianola	Simpson College	A. V. Proudfoot	J. H. Henderson.
Iowa City	State University of Iowa	D. D. Murphy	W. H. Gemmill.
Iowa Falls	Ellsworth College	Silas M. Weaver	F. D. Peet.
Lamoni	Graceland College	Albert Carmichael	J. F. Garver.
Mount Pleasant	Iowa Wesleyan College	Hugh A. Cole	Thomas Osborn.
Mount Vernon	Cornell College	Charles W. Flint	Hamline H. Freer.
Oskaloosa	Penn College	William A. Johnson	I. W. Cook.
Pella	Central University of Iowa	B. F. Brinkman	John Wesselink.
Sioux City	Morningside College	E. C. Heilman	F. O. Barz.
Storm Lake	Buena Vista College	W. C. Edson	Dr. W. M. Storey.
Tabor	Tabor College	Nelson W. Wehrhan	Mary Anna Reed.
Toledo	Leander Clark College[2]	J. H. Yaggy	E. A. Benson.
University Park	Central Holiness University	W. M. Bair	H. E. Rosenberger.

[1] Board of managers.

[2] Has discontinued sessions for the period of the war.

XXI.—Presidents and Secretaries of Boards of Trustees of Universities and Colleges—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
KANSAS.			
Atchison	Midland College	E. E. Stauffer	R. B. Peery.
Do	St. Benedict's College	Innocent Wolf, O.S.B.	Damian Lavery, O.S.B.
Baldwin	Baker University	Nelson Case	Charles E. Beeks.
Emporia	College of Emporia	William Foulkes	H. C. Culbertson.
Highland	Highland College	William M. Boone	Tobias Larson.
Kansas City	Kansas City University	Bishop Cyrus J. Kephart.	Judge F. T. Woodburn.
Lawrence	University of Kansas	Gov. Arthur Capper	W. N. Mason.
Lindsborg	Bethany College	Alfred Bergin	Andrew Monson.
McPherson	McPherson College	J. J. Yoder	H. J. Harnly.
Manhattan	Kansas State Agricultural College.	Gov. Arthur Capper, chairman.	Lee Harrison.
Ottawa	Ottawa University	A. S. Olin	W. A. Elliott.
St. Marys	St. Mary's College	William J. Wallace, S. J.	Simon A. Ryan, S. J.
Salina	Kansas Wesleyan University	T. W. Roach	C. W. Stevens.
Sterling	Cooper College	R. T. Campbell	W. E. Currie.
Topeka	Washburn College	P. P. Womer	Ella May Pixley.
Wichita	Fairmount College	H. W. Darling	Robert L. Holmes.
Do	Friends University	L. Clarkson Henshaw	Dr. Thomas J. Carter.
Winfield	Southwestern College	A. O. Ebright	T. E. Hinshaw.
KENTUCKY.			
Berea	Berea College	William G. Frost	A. E. Thompson.
Bowling Green	Ogden College	Max B. Nahm	D. W. Wright.
Danville	Central University of Kentucky	A. J. A. Alexander	J. A. Cheek.
Do	Kentucky College for Women	John A. Quisenberry	Do.
Georgetown	Georgetown College	G. H. Nunnelly	J. W. Thacker.
Hopkinsville	Bethel Woman's College	C. M. Thompson	T. W. Blakey.
Lexington	Hamilton College for Women	J. S. Botts	Mrs Charles A. Thomas.
Do	Sayre College	Clifton B. Ross	E. D. Veach.
Do	University of Kentucky	Hon. A. O. Stanley	Wellington Patrick.
Do	Transylvania College	W. Hume Logan	Hogan Yancey.
Louisville	University of Louisville	A. Y. Ford	W. H. Bradbury.
Russellville	Bethel College	W. C. Nourse	H. L. Trimble.
Do	Logan Female College	F. F. Gibson, D. D.	A. P. Lyon.
St. Mary	St. Mary's College	Michael Jaglowicz, C. R.	Ignatius Perius, C. R.
Winchester	Kentucky Wesleyan College	E. G. B. Mann, D. D.	J. P. Strother.
LOUISIANA.			
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.	Hon. R. G. Pleasant	A. T. Prescott.
Clinton	Silliman Collegiate Institute	D. F. Wilkinson	D. M. Pipes.
Convent	Jefferson College		
Mansfield	Mansfield Female College	R. T. Moore	R. E. Babbits.
New Orleans	H. Sophie Newcomb Memorial College for Women.	R. M. Walmsley	L. A. Wogan.
Do	Loyola University	A. E. Otis, S. J.	Michael J. Walsh, S. J.
Do	Tulane University of Louisiana	Robert Sharp, Ph. D	L. A. Wogan.
Pineville	Louisiana College	Z. R. Lawhon	C. Cottingham.
MAINE.			
Brunswick	Bowdoin College	Kenneth C. M. Sills	Barrett Potter.
Lewiston	Bates College	George C. Chase	Franklin M. Drew.
Orono	University of Maine	Samuel W. Gould	Thomas V. Doherty.
Van Buren	Van Buren College (St. Mary's)	C. J. Barth, S. M.	Henry Seiller, C. M.
Waterville	Colby College	Leslie C. Cornish	Charles E. Owen.
MARYLAND.			
Annapolis	St. John's College	Gov. Emerson C. Harrington.	L. Dorsey Gassaway.
Do	United States Naval Academy	Rear Admiral E. W. Eberle, chairman of Academic Board.	Com. John Downes, secretary of Academic Board.
Baltimore	Goucher College	Summerfield Baldwin	George A. Solter.
Do	Johns Hopkins University	R. Brent Keyser	Henry D. Harlan.
Do	Loyola College	Jos. A. McEneany, S. J.	Richard A. Fleming, S. J.
Do	University of Maryland[1]	Dr. Thos. Fell, provost	Dr. Wm. S. Gardner.
Do	Morgan College (colored)	John F. Goucher	Joseph H. Lockerman.
Do	Mount St. Joseph's College	Brother Isadore, C. F. X	Brother Philip, C. F. X.
Chestertown	Washington College	Lewin W. Wickes	H. W. Vickers.

[1] Board of regents.

XXI.—PRESIDENTS AND SECRETARIES OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
MARYLAND—contd.			
College Park	Maryland State College of Agriculture.	S. M. Shoemaker, chairman.	W. W. Skinner
Ellicott City	Rock Hill College	Brother Philip, F. S. C.	Brother Julius, F. S. C.
Emmitsburg	Mount St. Mary's College	Right Rev. Mgr. Bernard J. Bradley.	Rev. Edward B. Jordan, S. T. D.
Frederick	Hood College	William C. Schaeffer	Frederick A. Rupley.
Lutherville	Maryland College for Women [1]	Ezra K. Bell, D. D.	James S. Nussear.
New Windsor	Blue Ridge College	Charles D. Bonsack	Herbert G. Englar.
Westminster	Western Maryland College	Charles Billingslea	T. H. Lewis.
MASSACHUSETTS.			
Amherst	Amherst College	George A. Plimpton	Williston Walker.
Do	Massachusetts Agricultural College.	Charles A. Gleason	Wilfred Wheeler.
Boston	Boston College	C. W. Lyons, S. J.	John S. Keating, S. J.
Do	Boston University	John L. Bates	George S. Butters.
Do	Simmons College	Henry Lefavour	John W. Bartol.
Cambridge	Harvard University [2]	Robert Grant	Winthrop H. Wade.
Do	Massachusetts Institute of Technology.	Richard C. MacLaurin	James P. Munroe.
Do	Radcliffe College	Le Baron R. Briggs	Anna Wellington Wolbach.
Northampton	Smith College	William Allan Neilson.	Charles N. Clark.
Norton	Wheaton College	Samuel V. Cole	Annie M. Kilham.
South Hadley	Mount Holyoke College	Joseph A. Skinner	Francis Parsons.
Tufts College	Tufts College	Austin B. Fletcher	Edmund W. Kellogg.
Wellesley	Wellesley College	Edwin F. Greene	Miss Sarah Lawrence.
Williamstown	Williams College	Harry A. Garfield	Willard E. Hoyt.
Worcester	Clark University	A. George Bullock	G. Stanley Hall.
Do	Clark College	do	Do.
Do	College of the Holy Cross	Joseph N. Dinand, S. J.	James A. Mullen, S. J.
Do	Worcester Polytechnic Institute	Charles G. Washburn	Charles Baker.
MICHIGAN.			
Adrian	Adrian College	Myron W. Hoisintgon	Ely D. Miller.
Albion	Albion College	E. J. Phelps	Samuel Dickie.
Alma	Alma College	James M. Barkley	Albert P. Cook.
Ann Arbor	University of Michigan [3]	Harry B. Hutchins	Shirley W. Smith.
Detroit	University of Detroit	William T. Doran, S. J.	Henry W. Otting, S. J.
East Lansing	Michigan Agricultural College	Frank S. Kedzie	Addison M. Brown.
Hillsdale	Hillsdale College	W. E. Ambler	Lorenzo E. Dow.
Holland	Hope College	Edward D. Dimnent	Gerrit J. Diekema.
Houghton	Michigan College of Mines	William Kelly	F. W. McNair.
Kalamazoo	Kalamazoo College	R. E. Olds, chairman	C. W. Oakley.
Olivet	Olivet College	Theodore H. Wilson	Edward M. Wyble.
MINNESOTA.			
Collegeville	St. John's University	Peter Engel, O. S. B.	Kilian Heid, O. S. B.
Minneapolis	Augsburg Seminary	Rev. E. E. Gynild	Fred Paulson.
Do	University of Minnesota	Fred B. Snyder	George H. Hayes.
Northfield	Carleton College	David P. Jones	Harlin W. Page.
Do	St. Olaf College	S. H. Holstad	O. O. Erling.
St. Paul	College of St. Catherine		
Do	College of St. Thomas		V. Rev. Jas. C. Byrne.
Do	Hamline University	Benjamin F. Nelson	Frank A. Cone.
Do	Macalester College	Thomas Shaw	B. H. Schriber.
St. Peter	Gustavus Adolphus College	Henry Benson	C. E. Benson.
Winona	College of St. Teresa	Mother M. Leo Tracy	Sister M. Anastasia Ryan.
MISSISSIPPI.			
Agricultural College	Mississippi Agricultural and Mechanical College.	Hon. Theodore G. Bilbo.	O. F. Lawrence.
Blue Mountain	Blue Mountain College	W. T. Lowrey	
Brookhaven	Whitworth Female College	Thad. B. Lampton	H. B. Watkins.
Clinton	Hillman College	W. T. Lowrey	Do.
Do	Mississippi College	W. T. Ratcliff	W. A. McComb.
Columbus	Industrial Institute and College.	Hon. Theodore G. Bilbo.	O. F. Lawrence.
Grenada	Grenada College	Judge J. G. McGowen.	Rev. R. A. Tucker.
Holly Springs	Rust University (colored)	John E. Anderson	F. H. Henry.
Jackson	Bellhaven College	W. C. Wells	C. A. Alexander.
Do	Millsaps College	W. B. Murruh	J. B. Streater.
Meridian	Meridian College (Conservatory).	L. P. Brown	T. C. Harmon.
Pontotoc	Chickasaw Female College		
University	University of Mississippi	Hon. Theodore G. Bilbo.	O. F. Lawrence.

[1] Board of control. [2] Board of overseers. [3] The regents.

XXI.—Presidents and Secretaries of Boards of Trustees of Universities and Colleges—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
MISSOURI.			
Albany	Palmer College	J. W. Piper	E. A. Watkins.
Cameron	Missouri Wesleyan College	W. F. Burris	Ben. F. Jones.
Canton	Culver-Stockton College	W. B. McRoberts	Ed. N. Cason.
Columbia	Christian College	D. A. Robnett	Mrs. L. W. St. Clair-Moss.
Do	Stephens College	W. W. Charters	J. E. Thornton.
Do	University of Missouri[1]	David R. Francis	J. G. Babb.
Fayette	Central College	John A. Rich	L. W. Jacobs.
Do	Howard Payne College	A. W. Walker	H. K. Givens.
Fulton	Westminster College	B. F. Edwards	B. H. Charles.
Do	Synodical College	A. D. Smith	S. G. Wood.
Do	William Woods College	W. E. Jameson. Chair.	J. H. Atkinson.
Glasgow	Pritchett College	M. L. Johnson	B. W. Heiman.
Lexington	Central College for Women	P. P. Lewis	E. N. Hopkins.
Liberty	William Jewell College	J. S. Major	
Marshall	Missuori Valley College	W. P. Stark	D. F. Manning.
Mexico	Hardin College	C. F. Clark	W. B. Sappington.
Morrisville	Searritt-Morrisville College	C. J. Wilkins	J. J. Orten.
Nevada	Cottey College	F. H. Glenn	J. M. Hall.
Parkville	Park College	Homer Mann	D. M. Knight.
St. Charles	Lindenwood College for Women	Dr. John L. Roemer	
St. Louis	Forest Park College	B. F. Edwards	M. Rhodes.
Do	St. Louis University	Bernard J. Otting, S. J.	Matthew McMenamy, S. J.
Do	Washington University[2]	Robert S. Brookings	Ludwig Kotany.
Springfield	Drury College	Thomas W. Nadal	G. W. Nonemacher.
Tarkio	Tarkio College	A. L. Davidson	John P. Stevenson.
Warrenton	Central Wesleyan College	Franz Piehler	D. W. Smith.
MONTANA.			
Boseman	Montana College of Agriculture and Mechanic Arts[3]	Hon. S. V. Stewart	May Trumper.
Butte	Montana State School of Mines	do	Do.
Missoula	State University	do	Do.
NEBRASKA.			
Bellevue	Bellevue College	C. M. Wilhelm	H. E. Maxwell.
Bethany	Cotner University	E. F. Snavely	John H. Bicknell.
College View	Union College	R. A. Underwood	H. A. Morrison.
Crete	Doane College	William A. Selleck	George W. Mitchell.
Grand Island	Grand Island College	Rev. A. J. Morris	Elias F. Starr.
Hastings	Hastings College	A. H. Jones	P. L. Johnson.
Lincoln	University of Nebraska[4]	Edward Provost Brown.	James S. Dales.
Omaha	Creighton University	F. X. McMenamy, S.J.	William P. Whelan, S. J.
Do	University of Omaha	Archie W. Carpenter	W. T. Graham.
University Place	Nebraska Wesleyan University	A. L. Johnson	N. A. Martin.
York	York College	W. O. Jones	R. E. Townsend.
NEVADA.			
Reno	University of Nevada[4]	J. F. Abel	Mrs. Louise Blaney.
NEW HAMPSHIRE.			
Durham	New Hampshire College of Agriculture and Mechanic Arts.	H. L. Boutwell	J. A. Tufts.
Hanover	Dartmouth College	Ernest Marion Hopkins.	John King Lord.
Manchester	St. Anxelm's College	Ernest Helmstetter, O. S. B.	Aloysius Bradley, O. S. B.
NEW JERSEY.			
Convent Station	College of St. Elizabeth	Sister Mary Pauline Kelligar.	Sister Mary Agnes Sharkey.
Hoboken	Stevens Institute of Technology	Alex. C. Humphreys	E. A. Stevens, jr.
Jersey City	St. Peter's College	James F. McDermott, S. J.	
Kenilworth	Upsala College	Mauritz Stolpe	J. E. Chester.
New Brunswick	Rutgers College	William H. S. Demarest.	J. Preston Searle.
Princeton	Princeton University	John G. Hibben[5]	Wilson Farrand.
South Orange	Seton Hall College	Right Rev. John J. O'Connor, D. D.	James J. Sheehan.

[1] Board of curators.
[2] Board of directors.
[3] State board of education has control.
[4] Board of regents.
[5] The governor of the State of New Jersey is ex officio president of the board of trustees.

XXI.—PRESIDENTS AND SECRETARIES OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
NEW MEXICO.			
Albuquerque	University of New Mexico [1]	George L. Brooks	J. A. Reidy.
Socorro	New Mexico State School of Mines.[1]	P. H. Argall	C. T. Brown.
State College	New Mexico College of Agriculture and Mechanic Arts.[1]	C. L. Hill	Louis A. McRae.
NEW YORK.			
Albany	New York State College for Teachers.	John H. Finley	Erastus Corning.
Alfred	Alfred University	Vernon A. Baggs	D. S. Burdick.
Annandale-on-Hudson.	St. Stephen's College	David H. Greer, chairman.	William Harison.
Aurora	Wells College	N. Lansing Zabriskie	Robert L. Zabriskie.
Brooklyn	Adelphi College	James H. Post	H. K. Twitchell.
Do	Polytechnic Institute of Brooklyn.	Fred W. Atkinson	Richard L. Russell.
Do	St. Francis College	Right Rev. Mons. George Kaupert.	Brother Vincent, O. S. F.
Do	College of St. Francis Xavier	Rev. Joseph H. Rockwell, S. J.	Rev. Thomas E. Murphy, S. J.
Do	St. John's College	John W. Moore, C. M.	E. L. Carey, C. M.
Buffalo	Canisius College	George J. Krim, S. J.	Frederic J. Bunse, S. J.
Do	University of Buffalo [2]	Charles P. Norton, chancellor.	Philip B. Goetz.
Canton	St. Lawrence University	Vasco P. Abbott	Frank N. Cleaveland.
Clinton	Hamilton College	Elihu Root	George E. Dunham.
Elmira	Elmira College	H. C. Mandeville	Arthur Clinton.
Geneva	Hobart College	Douglas Merritt, chairman.	P. N. Nicholas.
Hamilton	Colgate University	Sidney M. Colgate	James C. Colgate.
Ithaca	Cornell University	Hon. Frank N. Hiscock	Chas. D. Bostwick.
Keuka Park	Keuka College	W. T. Morris	Charles A. Dowdell.
New Rochelle	College of New Rochelle	Adrian Iselin, jr	Edward J. McGuire.
New York	Barnard College	Silas B. Brownell, chairman.	Frederic B. Jenninga, clerk.
Do	College of the City of New York	John G. Milburn, chairman.	James W. Hyde.
Do	Columbia University	William Barclay Parsons.	John B. Pine.
Do	Fordham University	Joseph A. Mulry, S. J.	Joseph T. Keating, S. J.
Do	Hunter College of the City of York.	Edward J. McGuire, chairman.	Ernest C. Hunt.
Do	Manhattan College	Strother Henry August, F. S. C.	Brother Jasper, F. S. C.
Do	New York University	George Alexander	George A. Strong.
Do	Teachers College	V. Everit Macy	Dunlevy Milbank.
Niagara University	Niagara University	William T. Lilly, C. M.	John J. O'Byrne, C. M.
Potsdam	Clarkson College of Technology	George H. Sweet	Hugh A. Grant.
Poughkeepsie	Vassar College	Charles M. Pratt, chairman.	Henry V. Pelton.
Rochester	University of Rochester	John P. Munn	Charles M. Williams.
St. Bonaventure	St. Bonaventure's College	Edward J. Blecke, O. F. M.	Alexander M. Hickey, O. F. M.
Schenectady	Union University	George Alexander, D. D.	Edgar S. Barney.
Syracuse	Syracuse University	Charles Andrews	De Witt B. Thompson.
Troy	Rensselaer Pyrotechnic Institute.	Palmer C. Ricketts	John Squires.
West Point	U. S. Military Academy	None	None.
NORTH CAROLINA.			
Belmont	Belmont Abbey College	Right Rev. Leo Haid, O. S. B.	Thomas Oestreich, O. S. B.
Chapel Hill	University of North Carolina	Hon. T. W. Bickett	R. D. W. Connor.
Charlotte	Biddle University (colored)	R. P. Wyche	S. F. Wentz.
Do	Queens College	A. A. McGeachy	William Anderson.
Davidson	Davidson College	W. L. Lingle	W. J. McKay.
Durham	Trinity College	Joseph G. Brown	D. W. Newsom.
Elon College	Elon College	W. A. Harper	P. H. Fleming.
Greensboro	Greensboro College for Women	J. B. Blades	Charles H. Ireland.
Guilford College	Guilford College	J. Elwood Cox	David White.
Hickory	Lenoir College	J. H. C. Huitt	E. J. Sox.
Raleigh	Meredith College	W. N. Jones	J. D. Boushall.
Do	Peace Institute	William McC. White, chairman.	Mary Owen Graham.
Do	St. Mary's School	Joseph B. Cheshire	K. P. Battle, jr.
Do	Shaw University (colored)	W. S. Tanner	Albion H. Brainard.

[1] Board of regents.

[2] Council of the university.

XXI.—PRESIDENTS AND SECRETARIES OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
NORTH CAROLINA—continued.			
Red Springs	Flora Macdonald College	A. W. McLean	Dr. J. L. McMillan.
Salisbury	Livingstone College (colored)	J. W. Hood, D. D.	James E. Mason.
Wake Forest	Wake Forest College	James M. Parrott	Carey J. Hunter.
Weaverville	Weaver College	H. A. Dunham	C. E. Chambers.
West Raleigh	North Carolina State College of Agriculture and Engineering.	Hon. T. W. Bickett, ex officio.	C. W. Gold.
Wilson	Atlantic Christian College	George Hackney	S. G. Newborn.
Winston-Salem	Salem Academy and College	Edward Rondthaler	Howard E. Rondthaler.
NORTH DAKOTA.			
Agricultural College	North Dakota Agricultural College.[1]	Lewis F. Crawford	Charles E. Brewer.
Fargo	Fargo College	E. Lee Howard, D. D.	Edwin H. Stickney, D. D.
Jamestown	Jamestown College	H. M. Taber, chairman	S. E. Elsworth.
University	University of North Dakota[1]	Lewis F. Crawford	Charles E. Brewer.
Do	Wesley College	Frank Lynch	Thomas A. Gallagher.
OHIO.			
Ada	Ohio Northern University	S. A. Bowman	S. D. Hazlett.
Akron	The Municipal University of Akron.	Frank M. Cooke	C. R. Olin.
Alliance	Mount Union College	Walter M. Ellett	R. H. Carr.
Ashland	Ashland College	William Kolb, jr	R. R. Teeter.
Athens	Ohio University	Alston Ellis	Israel M. Foster.
Berea	Baldwin-Wallace College	Carl F. Strecker	Dayton C. Miller.
Bluffton	Bluffton College	J. F. Lehman	L. J. Lehman.
Cedarville	Cedarville College	William Conley	S. C. Wright.
Cincinnati	St. Xavier College	Rev. James McCabe, S. J.	Rev. George A. McGovern, S. J.
Do	University of Cincinnati	Rufus B. Smith	Daniel Laurence.
Cleveland	Case School of Applied Science	John M. Henderson	Eckstein Case.
Do	St. Ignatius College	William B. Sommerhauser, S. J.	Francis J. Haggeney.
Do	Western Reserve University	Charles F. Thwing	Wilfred G. Leutner, acting secretary.
Columbus	Capital University	C. F. W. Allwardt	L. H. Burry.
Do	Ohio State University	Benjamin F. McCann	Carl E. Steeb.
Dayton	St. Mary College	George Meyer, S. M.	George N. Sauer, S. M.
Defiance	Defiance College	D. M. McCullough	Elizabeth F. Wells.
Delaware	Ohio Wesleyan University	David S. Gray	William G. Hormell.
Findlay	Findlay College	William Harris Guyer	A. O. Hamilton, financial secretary.
Gambier	Kenyon College	Bishop William A. Leonard.	Francis W. Blake.
Granville	Denison University	Charles T. Lewis	Millard Brelsford.
Hiram	Hiram College	Frederick A. Henry	James O. Newcomb.
Marietta	Marietta College	G. W. Hinman	W. W. Mills.
New Athens	Franklin College	W. H. McFarland	Lorain Johnson.
New Concord	Muskingum College	D. W. McClenahan, D. D.	W. J. Grimes.
Oberlin	Oberlin College	Henry C. King	George M. Jones.
Oxford	Miami University	Walter L. Tobey	Wallace P. Roudebush.
Do	Oxford College for Women	Eleanor N. Adams	William H. Stewart.
Do	Western College for Women	J. S. Crowell	Mrs. B. A. Richardson.
Painesville	Lake Erie College	James R. Garfield	Frank J. Jerome.
Rio Grande	Rio Grande College	Benner Jones	John M. Davis.
Springfield	Wittenberg College	N. S. Everhard	A. H. Smith.
Tiffin	Heidelberg University	George F. Baries	J. Calvin Royer.
Toledo	St. Johns University	Francis X. Busch, S. J.	William J. Engelen, S. J.
Do	Toledo University	William H. Tucker	J. Gazzam Mackenzie.
Westerville	Otterbein University	G. A. Lambert	E. L. Weinland.
Wilberforce	Wilberforce University (colored)	C. T. Shaffer	Carl C. Jenkins.
Wilmington	Wilmington College	David E. Dunham	Laurenna H. Farquhar.
Wooster	College of Wooster	John T. Stone	Judge R. L. Adair.
Yellow Springs	Antioch College	George D. Black, D.D., acting president.	J. Peery Miller.
OKLAHOMA.			
Chickasha	Oklahoma College for Women[2]	R. H. Wilson	Leslie T. Huffman.
Guthrie	Methodist University of Oklahoma.	William M. Short	W. R. Johnson.
Kingfisher	Kingfisher College	George L. Bowman	Charles W. Fisk.
Norman	University of Oklahoma[2]	R. H. Wilson	Leslie T. Huffman.
Stillwater	Oklahoma Agricultural and Mechanical College.[3]	F. M. Gault	N. H. Lingenfelter.
Tulsa	Henry Kendall College	E. Roger Kemp	Rev. L. C. Walter.

[1] Board of regents. [2] State board of education has control. [3] State board of agriculture has control.

XXI.—PRESIDENTS AND SECRETARIES OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
OREGON.			
Albany	Albany College	Frank J. Miller	William Fortmiller.
Corvallis	Oregon Agricultural College	J. K. Weatherford	Jefferson Myers.
Eugene	University of Oregon	R. S. Bean	L. H. Johnson.
Forest Grove	Pacific University	Harrison G. Platt	Napoleon Davis.
McMinnville	McMinnville College	B. F. Rhodes	Walter P. Dyke.
Newberg	Pacific College	Ezra H. Woodward	Evangeline Martin.
Portland	Reed College	Thomas L. Eliot	William P. Olds.
Salem	Willamette University	B. L. Steeves	I. H. van Winkle.
PENNSYLVANIA.			
Allentown	Allentown College for Women	Webster Grim	F. H. Moyer.
Do	Muhlenberg College	Reuben J. Butz	J. H. Waidelich.
Annville	Lebannon Valley College	A. S. Kreider	W. H. Weaver.
Beatty	St. Vincent College	Leander Schnerr, O. S. B.	Gerard Bridge, O. S. B.
Beaver	Beaver College	W. F. Connor	Robert Darragh.
Beaver Falls	Geneva College	R. C. Wylie	E. K. Patton.
Bethlehem	Lehigh University	Henry R. Price	Warren A. Wilbur.
Do	Moravian College and Theological Seminary.	Right Rev. Charles L. Moench.	Albert G. Rau.
Do	Moravian Seminary and College for Women.	Abraham S. Schropp	E. A. Rau.
Bryn Mawr	Bryn Mawr College	Rufus M. Jones	Anna Rhoads Ladd.
Carlisle	Dickinson College	E. W. Biddle	Charles W. Straw.
Chambersburg	Wilson College	J. Ritchie Smith	Thomas J. Brereton.
Chester	Pennsylvania Military College	John Wanamaker	Frank G. Sweeney.
Collegeville	Ursinus College	H. E. Paisley	S. L. Messinger.
Easton	Lafayette College	Israel P. Pardee	David Bennett King.
Gettysburg	Pennsylvania College	John F. Dapp	H. C. Picking.
Greenville	Thiel College	W. E. Frey	W. H. Shepfer.
Grove City	Grove City College	F. R. Babcock	William S. McKay.
Haverford	Haverford College	Asa S. Wing	Morris E. Leeds.
Huntingdon	Juniata College	H. B. Brumbaugh	J. A. Myers.
Lancaster	Franklin and Marshall College	B. F. Fackenthal, jr	George F. Mull.
Lewisburg	Bucknell University	Harry S. Hopper	A. J. Rowland.
Lincoln University	Lincoln University (colored)	John B. Rendall	William C. Robinson.
Meadville	Allegheny College	Arthur W. Thompson	Paul Sturtevant.
Mechanicsburg	Irving Female College	A. R. Steck	Charles R. Trowbridge.
Myerstown	Albright College	W. E. Detwiler	J. H. Shirey.
New Wilmington	Westminister College	W. Charles Wallace, D. D.	W. T. Pierce.
Philadelphia	Drexel Institute	Alexander van Rensselaer.	Herman Dercum.
Do	Dropsie College	Cyrus Adler	Ephraim Lederer.
Do	La Salle College	Rev. Brother Richard	Brother D. Aloysius F. S. C.
Do	Temple University	Russell H. Conwell	George A. Welsh.
Do	University of Pennsylvania	Edgar F. Smith	Edward Robins.
Pittsburgh	Carnegie Institute of Technology.	William McConway, chairman.	W. Lucien Scaie.
Do	Duquesne University of the Holy Ghost.	Martin A. Hehir	John E. Kane.
Do	Pennsylvania College for Women.	Oliver McClintock	William H. Rea.
Do	University of Pittsburgh	George H. Clapp	Samuel B. Linhart.
Selinsgrove	Susquehanna University	Charles T. Aikens	R. L. Schroyer.
State College	Pennsylvania State College	H. Walton Mitchell	Edwin E. Sparks.
Swarthmore	Swarthmore College	Robert M. Janney	Hetty L. Miller.
Villanova	Villanova College	N. J. Vasey, O. S. A	T. C. Middleton, O.S.A
Washington	Washington and Jefferson College.	John L. Dickey, vice president.	James I. Brownson.
Waynesburg	Waynesburg College	Nathan B. Evans	J. W. Ray.
PORTO RICO.			
Rio Piedras	University of Porto Rico	Paul G. Miller	Henry B. Moore.
RHODE ISLAND.			
Kingston	Rhode Island State College	Walter E. Ranger	Robert S. Burlingame.
Providence	Brown University	William H. P. Faunce	Thomas D. Anderson.
SOUTH CAROLINA.			
Charleston	College of Charleston	Harrison Randolph	J. C. Balf.
Do	The Citadel, The Military College of South Carolina.	Col. O. J. Bond, Supt.	

XXI.—PRESIDENTS AND SECRETARIES OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
SOUTH CAROLINA—con.			
Clemson College	Clemson Agricultural College	Alan Johnstone	Samuel W. Evans.
Clinton	Presbyterian College of South Carolina.	Alexander Martin	A. E. Spencer.
College Place	Columbia College	E. O. Watson	A. N. Brunson.
Columbia	Allen University (colored)	Bishop W. D. Chappelle.	Greene Jackson.
Do	Benedict College (colored)	William H. Lyles	B. W. Valentine.
Do	University of South Carolina	Gov. Richard I. Manning.	Sarah F. Fickling.
Due West	Erskine College	G. R. White, D. D.	C. G. Parkinson, D. D.
Do	Woman's College of Due West	A. S. Kennedy	E. L. Reid.
Greenville	Chicora College	J. P. Marion	S. C. Byrd.
Do	Furman University	J. J. Lawton	A. G. Furman.
Do	Greenville Woman's College	T. T. Hyde	B. F. Martin.
Greenwood	Lander College	George W. Sullivan	M. W. Hook.
Hartsville	Coker College	James L. Coker	J. J. Lawton.
Newberry	Newberry College	George B. Cromer	J. B. Hunter.
Spartanburg	Converse College	J. B. Cleveland	H. L. Bomar.
Do	Wofford College	J. Lyles Glenn	James W. Kilgo.
SOUTH DAKOTA.			
Brookings	South Dakota State College of Agricultural and Mechanic Arts.[1]	T. W. Dwight	Irwin L. Aldrich.
Huron	Huron College	H. M. Gage	J. I. Pasek, business manager.
Mitchell	Dakota Wesleyan University	S. E. Morris	Lewis Shuster.
Rapid City	State School of Mines	T. W. Dwight	I. D. Aldrich.
Sioux Falls	Sioux Falls College	S. P. Shaw	A. E. Godfrey.
Vermilion	University of South Dakota	T. W. Dwight	I. D. Aldrich.
Yankton	Yankton College	H. K. Warren	M. A. Stewart, acting secretary.
TENNESSEE.			
Bristol	King College	John H. Caldwell	Tilden Scherer.
Do	Sullins College	A. D. Reynolds	T. F. Staley.
Chattanooga	University of Chattanooga	T. S. Henderson	Herman Ferger.
Clarksville	Southwestern Presbyterian University.	Charles E. Diehl	M. Savage.
Greeneville	Tusculum College	Henry R. Brown	E. J. Baxter.
Harrogate	Lincoln Memorial University	F. A. Seiberling	J. H. S. Morison.
Jackson	Memphis Conference Female Institute.	J. W. Blackard	Alva W. Taylor.
Do	Union University	O. C. Barton	A. M. Alexander.
Jefferson City	Carson-Newman College	J. Pike Powers	J. N. Ellis.
Knoxville	Knoxville College (colored)	D. A. McClenahan	R. W. McGranahan.
Do	The University of Tennessee	Brown Ayres	William Rule.
Lebanon	Cumberland University	A. B. Martin	A. W. Hooker.
McKenzie	Bethel College	D. M. McAnulty	J. W. Smith.
Maryville	Maryville College	Edgar A. Elmore	Fred. L. Proffitt.
Memphis	Christian Brothers College	Brother John, F. S. C.	Brother Hilarion, F. S. C.
Milligan	Milligan College	C. C. Taylor	Walter Price.
Murfreesboro	Tennessee College	C. H. Byrn	John Williams.
Nashville	Boscobel College	W. M. Lunsford	William Hume.
Do	Fisk University (colored)	L. Hollingsworth Wood, vice chairman.	Dr. Thomas Jesse Jones.
Do	Peabody College for Teachers	Edward T. Sanford, chairman.	Charles E. Little.
Do	Vanderbilt University	Whitefoord R. Cole	Claude Waller.
Sewanee	University of the South	Bishop T. F. Gailor	James G. Glass.
Spencer	Burritt College	W. S. Graves	J. Logan Malloy.
Washington College	Washington College	James T. Cooter	J. W. Whitlock.
TEXAS.			
Abilene	Simmons College	George L. Paxton	D. H. Mansell, bursar.
Austin	University of Texas[1]	F. W. Cook	E. J. Matthews.
Belton	Baylor Female College	A. J. Jarrell	Rev. S. E. Tull.
Brownwood	Daniel Baker College	A. F. Carr, D. D.	Brooke Smith.
Do	Howard Payne College	T. C. Yantis	J. L. King.
College Station	Agricultural and Mechanical College of Texas.	John I. Guion	S. G. Bailey.
Dallas	Southern Methodist University	Bishop E. D. Mouzon	Frank Reedy.
Fort Worth	Texas Christian University	S. J. McFarland	E. M. Waits.
Do	Texas Woman's College	Ocie Speer	P. G. Dedmon.

[1] Board of regents.

XXI.—PRESIDENTS AND SECRETARIES OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
TEXAS—continued.			
Georgetown	Southwestern University	W. L. Dean	Rev. R. G. Mood.
Houston	Rice Institute	James A. Baker	Benjamin B. Rice.
San Antonio	St. Louis College	James P. Canning	John F. Ryan.
Sherman	Austin College	A. L. Randell	William F. Galbraith.
Do	North Texas Female College	John Marshall	P. C. Archer.
Tehuacana	Westminster College	W. M. Moody	J. A. Miller.
Waco	Baylor University	Pat M. Neff	W. H. Jenkins.
Waxahachie	Trinity University	F. N. Drane	H. L. Williamson.
UTAH.			
Logan	Agricultural College of Utah	Lorenzo N. Stohl	John L. Coburn.
Salt Lake City	University of Utah [1]	W. W. Riter	E. D. Thomas.
VERMONT.			
Burlington	University of Vermont and State Agricultural College.	George H. Perkins, acting president.	Guy W. Bailey.
Middlebury	Middlebury College	John M. Thomas	John A. Fletcher.
Northfield	Norwich University	H. R. Roberts, acting president.	Henry W. Orser.
Winooski	St. Michael's College	E. M. Salmon, S. S. E.	E. Alliot, S. S. E.
VIRGINIA.			
Abingdon	Martha Washington College	M. H. Honaker	L. T. Cosby.
Do	Stonewall Jackson College	J. A. Buchanan	J. R. Dobyns.
Ashland	Randolph-Macon College	E. D. Newman	S. C. Hatcher.
Blacksburg	Virginia Agricultural and Mechanical College and Polytechnic Institute.	J. Thompson Brown, rector of board of visitors.	Charles I. Wade.
Bridgewater	Bridgewater College	Hiram G. Miller	Sidney L. Bowman.
Bristol	Virginia Intermont College	John R. Dickey	S. C. Hodges.
Charlottesville	University of Virginia	R. Tate Irvine, rector of board of visitors.	E. I. Carruthers, bursar.
Danville	Averett (Junior) College for Young Women.	H. L. Boatwright	D. B. Gardner.
Emory	Emory and Henry College	M. H. Honaker	G. E. Penn.
Hampden Sidney	Hampden-Sidney College	Paulus A. Irving	F. T. McFaden.
Hollins	Hollins College	Lucian H. Cocke	M. Estes Cocke.
Lexington	Virginia Military Institute	R. A. James	L. E. Steele.
Do	Washington and Lee University.	William A. Anderson, rector.	Paul M. Penick.
Lynchburg	Randolph-Macon Woman's College.	E. D. Newman	S. C. Hatcher.
Do	Virginia Christian College	T. G. Hobbs	W. G. Shackelford.
Manassas	Eastern College	Hervin U. Roop	Thomas H. Lion.
Richmond	Richmond College	J. Taylor Ellyson	B. West Tabb.
Do	Virginia Union University (colored).	A. Binga, jr., D. D	William C. James.
Roanoke	Virginia College (Junior) for Young Women.	Mattie P. Harris	
Salem	Elizabeth College	R. W. Kime	Charles K. Hunton.
Do	Roanoke College	Rev. A. D. R. Hancher, vice president.	Robert W. Kime.
Sweet Briar	Sweet Briar College	Carl C. Grammer	Arthur P. Gray.
Williamsburg	College of William and Mary	Dr. James H. Dillard	L. W. Lane, jr.
WASHINGTON.			
Pullman	State College of Washington [1]	Edwin T. Coman	E. O. Holland.
Seattle	University of Washington [1]	William T. Perkins	William Markham.
Spokane	Gonzaga University	James M. Brogan, S. J.	Paul P. Sauer, S. J.
Do	Spokane College	Rev. A. M. Skinlov	P. O. Floan.
Do	Whitworth College	Jay P. Graves	R. E. Porterfield.
Tacoma	College of Puget Sound	E. L. Blaine	Dix H. Rowland.
Walla Walla	Whitman College [2]	Hon. Miles C. Moore	Dorsey M. Hill.
WEST VIRGINIA.			
Bethany	Bethany College	Thomas E. Cramblet	M. V. Danford.
Buckhannon	West Virginia Wesleyan College	Charles W. Lynch	John A. Barnes.
Elkins	Davis and Elkins College	Howard Sutherland	Frederick H. Barron.
Morgantown	West Virginia University	M. P. Shawkey	J. F. Marsh.

[1] Board of regents.

[2] Board of overseers.

XXI.—Presidents and Secretaries of Boards of Trustees of Universities and Colleges—Continued.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
WISCONSIN.			
Appleton	Lawrence College	L. M. Alexander	Herman Saecker.
Beloit	Beloit College	Melvin A. Brannon	Edward B. Kilbourn.
Madison	University of Wisconsin [1]	Charles H. Vilas	M. E. McCaffrey.
Milton	Milton College	Fred C. Dunn	Allen B. West.
Milwaukee	Concordia College	Rev. Ed. Albrecht	B. Sievers.
Do	Marquette University	Herbert C. Noonan, S. J.	James D. Foley, S. J.
Do	Milwaukee-Downer College	W. W. Wight	Charles H. Palmer.
Plymouth	Mission House	D. Hagelskamp	E. A. Hofer.
Prairie du Chien	Campion College	Albert C. Fox	James J. Daly.
Ripon	Ripon College	Henry C. Culbertson	Samuel M. Pedrick.
Sinsinawa	St. Clara College and Academy	Mother M. Samuel	Sister M. Constantia.
Watertown	Northwestern College	Rev. Jul. Klingmann	H. Machmueller.
Waukesha	Carroll College	William W. Perry	Henry M. Youmans.
WYOMING.			
Laramie	University of Wyoming	Mrs. Mary B. David	F. S. Burrage.

[1] Board of regents.

XXII.—Presidents or Deans of Professional Schools.

1. SCHOOLS OF THEOLOGY.

Location.	Name of institution.	President or dean.
St. Bernard, Ala	St. Bernard College and Abbey (R. C.)	Bernard Menges, D. D., O. S. B.
Selma, Ala	Payne University Theological Department (A. M. E.).	Robert Ernest Brooks, D. D.
Talladega, Ala	Talladega College Theological Seminary (Cong.)	Frank S. Brewer, B. A.
Tuscaloosa, Ala	Stillman Institute (colored) (Presb.)	Rev. R. K. Timmons.
Argenta, Ark	Shorter College Theological Department (A. M. E.).	J. N. Campbell, B. D.
Little Rock, Ark	Arkansas Baptist College School of Theology	Joseph A. Booker, D. D.
Do	St. John's Diocesan Seminary (R. C.)	Winand H. Aretz, S. T. D.
Berkeley, Cal	Berkeley Baptist Divinity School	Claiborne M. Hill, D. D.
Do	Pacific School of Religion (undenominational)	Charles Sumner Nash, D. D
Do	Pacific Unitarian School for the Ministry	Earl Morse Wilbur, D. D.
Los Angeles, Cal	University of Southern California, Maclay College of Theology (M. E.).	Ezra A. Healy, S. T. D.
Menlo Park, Cal	St. Patrick's Seminary (R. C.)	Henry A. Ayrinhac, S. S.
San Anselmo, Cal	San Francisco Theological Seminary (Presb.)	Warren Hall Landon, D. D.
San Francisco, Cal	California Bible College (Disc.)	Dennison A. Russell, D. D.
Do	Church Divinity School of the Pacific (P. E.)	William F. Nichols, D. D.
Denver, Colo	Iliff School of Theology (M. E.)	James A. Beebe, D. D.
Hartford, Conn	Hartford Seminary Foundation (Cong.)	William Douglas Mackenzie, D. D., LL. D.
Middletown, Conn	Berkeley Divinity School (P. E.)	William Palmer Ladd, B. D., dean.
New Haven, Conn	Yale University School of Religion (nonsectarian)	Charles Reynolds Brown, D. D.
Washington, D. C	Catholic University of America, School of Sacred Sciences (R. C.).	Edmund T. Shanahan, D. D.
Do	Howard University Theological Department (colored) (interdenominational).	Davie Butler Pratt, D. D.
St. Leo, Fla	St. Leo College and Abbey (R. C.)	Charles H. Mohr, O. S. B., D. D.
Atlanta, Ga	Atlanta Theological Seminary (Cong.)	E. Lyman Hood, Ph. D.
Do	Emory University, Candler School of Theology (M. E. Church South).	Plato T. Durham, D. D.
Do	Gammon Theological Seminary (colored) (M. E.)	Philip M. Watters, D. D
Do	Morehouse College Divinity School (colored) (Bapt.)	C. C. Smith, D. D.
Do	Morris Brown University, Turner Theological Seminary (A. M. E.).	P. W. Greatherat, D. D.
Aurora, Ill	Aurora College Biblical Department (Advent Christ.).	Orrin R. Jenks, D. B.
Bourbonnais, Ill	S. Viator College Theological Seminary (R. C.)	J. P. O'Mahoney, C. S. V.
Chicago, Ill	Bethany Bible School	Albert C. Wieand, D. D.
Do	Chicago Theological Seminary (Cong.)	Ozora Stearns Davis, D. D.
Chicago (Maywood), Ill.	Evangelical Lutheran Theological Seminary at Chicago.	Elmer F. Krauss, D. D.
Chicago, Ill	McCormick Theological Seminary (Presb.)	James G. K. McClure, D. D., LL. D.
Do	University of Chicago Divinity School (Bapt.)	Shailer Mathews, D. D.
Do	Western Theological Seminary (P. E.)	William C. De Witt, S. T. D.

XXII.—Presidents or Deans of Professional Schools—Continued.

1. SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Evanston, Ill	Garrett Biblical Institute, Northwestern University (M. E.).	Charles M. Stuart, D. D., LL. D.
Do	Norwegian-Danish Theological Seminary, Northwestern University (M. E.).	Nels E. Simonsen, D. D.
Do	Swedish Theological Seminary, Northwestern University (M. E.).	Rev. Carl G. Wallenius.
Greenville, Il	Greenville College, Department of Theology (Free Meth.).	John La Due, A. M.
Naperville, Ill	Evangelical Theological Seminary (Ev. Asso.)	S. J. Gamertsfelder, D. D.
Rock Island, Il	Augustana College and Theological Seminary (Ev. Luth.).	Gustav Andreen, D. D., R. N. O., K. V. O.
Springfield, Ill	Concordia Theological Seminary (Ev. Luth. Synod of Missouri, Ohio, and other States).	Rev. R. D. Biedermann.
Merom, Ind	Union Christian College Biblical Department (Chris.).	Charles B. Hershey, D. D.
St. Meinrad, Ind	St. Meinrad Seminary (Ecclesiastic) (R. C.)	Very Rev. Albert Kleber, O. S. B., rector.
Upland, Ind	Reade Theological Seminary, Theological Department of Taylor University.	Newton Wray, B. D., D. D.
Des Moines, Iowa	Drake University College of the Bible (Chris.)	Jesse C. Caldwell, B. D., LL. D.
Do	Grand View College Theological School (Luth.)	Carl P. Höjbjerg, president.
Dubuque, Iowa	Dubuque College and Seminary (Presb.)	Cornelius M. Steffens, D. D.
Do	Wartburg Theological Seminary (Ev. Luth.)	M. Fritschel, D. D.
Atchison, Kans	Western Theological Seminary of Ev. Luth. Church, Midland College.	Holmes Dysinger, D. D., LL. D.
Kansas City, Kans	Kansas City Baptist Theological Seminary	Philip W. Crannell, D. D.
Do	Kansas City University College of Theology (Meth. Prot.).	Herbert T. Stephens, D. D.
Topeka, Kans	Kansas Theological School	James Wise, S. T. D.
Kingswood, Ky	Department of Theology, Christian Ethics and Metaphysics, Kingswood College.	Rev. W. B. Dunkum.
Lexington, Ky	College of the Bible, Transylvania College (Chris.)	Richard H. Crossfield, LL. D.
Louisville, Ky	Presbyterian Theological Seminary of Kentucky	Charles R. Hemphill, D. D., LL. D.
Do	Southern Baptist Theological Seminary	Edgar Y. Mullins, D. D., LL. D.
Do	State University Theological Department (colored) (Bapt.).	Marshall B. Lanier, B. D.
Bangor, Me	Bangor Theological Seminary (Cong.)	David N. Beach, D. D.
Baltimore, Md	St. Mary's Seminary (R. C.)	E. R. Dyer, S. S., D. D.
Emmitsburg, Md	Mount St. Mary College, Ecclesiastical Seminary (R. C.).	B. J. Bradley, LL. D.
Westminster, Md	Westminster Theological Seminary (Meth. Prot.)	Hugh Latimer Elderdice, D. D.
Woodstock, Md	Woodstock College (R. C.)	Joseph F. Hanselman, S. J.
Boston, Mass	Boston University School of Theology (M. E.)	L. J. Birney, D. D.
Boston (Brighton), Mass.	St. John's Boston Ecclesiastical Seminary (R. C.)	John B. Peterson, Ph. D.
Cambridge, Mass	Andover Theological Seminary (Cong.)	
Do	Episcopal Theological School	George Hodges, D. D., D. C. L., LL. D.
Do	Harvard University Divinity School (Nonsect.)	William Wallace Fenn, D. D.
Do	New-Church Theological School (Ch. of N. Jeru.)	Rev. William L. Worcester.
Newton Centre, Mass	Newton Theological Institution (Bapt.)	George Edwin Horr, D. D., LL. D.
Tufts College, Mass	Tufts College, Crane Theological School (Univ.)	Lee S. McCollester, D. D.
Grand Rapids, Mich	Theological School and Calvin College (Chris. Ref. Ch.).	Professor Samuel Volbeda, rector.
Holland, Mich	Western Theological Seminary (Ref. Ch. in Amer.)	James F. Zwemer, D. D.
Hancock, Mich	Suomi College Theological Seminary (Finnish Ev. Luth.).	John K. Nikander, D. D.
Owosso, Mich	Bible Holiness Seminary School of Theology	Rev. C. G. Taylor.
Collegeville, Minn	St. John's University Ecclesiastical Seminary (R. C.).	Rt. Rev. Peter Engel, O. S. B.
Faribault, Minn	Seabury Divinity School (P. E.)	Frederick F. Kramer, Ph. D., D. D.
Minneapolis, Minn	Augsburg Seminary (Ev. Luth.)	George Sverdrup, M. A.
St. Paul, Minn	Bethel Theological Seminary (Bapt.)	G. Arvid Hagstrom, D. D.
Do	Luther Seminary	H. Ernst, D. D.
Do	Evangelical Norwegian Lutheran Seminary	Johs. Ylvisaker.
Do	St. Paul Theological Seminary (R. C.)	Francis J. Schaefer, D. D.
St. Paul (St. Anthony Park), Minn.	Luther Theological Seminary	Marcus Olaus Böckman, D. D.
Columbia, Mo	Bible College of Missouri	Rev. Granville D. Edwards.
Canton, Mo	School of Religion in Culver-Stockton College	Henry B. Robison, Ph. D.
St. Louis, Mo	Concordia Theological Seminary (Ev. Luth.)	Francis Pieper, D. D.
Do	Eden Theological Seminary of the Evangelical Church of North America.	William Becker.
Do	St. Louis University School of Divinity (R. C.)	Francis J. O'Boyle, S. J.

XXII.—Presidents or Deans of Professional Schools—Continued.

1. SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Warrenton, Mo.	Central Wesleyan College German Theological Seminary (M. E.).	E. S. Havighurst, D. D.
Webster Groves.	Kenrick Theological Seminary (R. C.).	M. S. Ryan, C. M., D. D.
Blair, Nebr.	Dana College, Trinity Seminary (Ev. Luth.).	Rev. L. A. Laursen.
Omaha, Nebr.	Presbyterian Theological Seminary.	Albert B. Marshall, D. D., LL. D.
Bloomfield, N. J.	Bloomfield Theological Seminary (Presb.).	Henry J. Weber, Ph. D., D. D., dean.
Madison, N. J.	Drew Theological Seminary (M. E.).	Ezra Squier Tipple, D. D.
New Brunswick, N. J.	Theological Seminary of the Reformed Church in America.	J. Preston Searle, D. D.
Princeton, N. J.	Princeton Theological Seminary of the Presbyterian Church.	J. Ross Stevenson, D. D., LL. D.
South Orange, N. J.	Diocesan Seminary of the Immaculate Conception, Seton Hall College (R. C.).	Mgr. James F. Mooney.
Alfred, N. Y.	School of Religion at Alfred University (7th Day Bapt.).	Arthur E. Main, D. D.
Auburn, N. Y.	Auburn Theological Seminary (Presb.).	George B. Stewart, D. D., LL. D.
Brooklyn, N. Y.	St. John's College Diocesan Theological Seminary (R. C.).	E. L. Carey, C. M.
Buffalo, N. Y.	German Martin Luther Seminary.	Rudolph Grabau.
Canton, N. Y.	Canton Theological School of St. Lawrence University (Univ.).	John Murray Atwood, D. D.
Esopus, N. Y.	Mount St. Alphonsus Theological Seminary, Redemptorist College (R. C.).	Florian J. Reichert, C. SS. R.
Geneva, N. Y.	De Lancy Divinity School (P. E.).	
Hamilton, N. Y.	Theological Seminary, Colgate University (Nonsect.).	John F. Vichert, D. D., dean.
Hartwick Seminary, N. Y.	Hartwick Seminary (Ev. Luth.).	Alfred Hiller, D. D., chairman.
Houghton, N. Y.	Houghton Wesleyan Methodist Theological Seminary.	James S. Luckey, president.
New York (City), N. Y.	Bible Teachers' Training School (Interdenominational).	William Hoge Marquess, D. D., LL. D., dean.
Do.	General Theological Seminary of the Protestant Episcopal Church.	Hughell E. W. Fosbroke, D. D.
Do.	Jewish Theological Seminary of America.	Cyrus Adler, Ph. D., acting president.
Do.	Union Theological Seminary (Interdenominational).	Arthur C. McGiffert, D. D., LL. D., president.
Niagara University, N. Y.	Niagara University Seminary of Our Lady of Angels (R. C.).	William T. Likly, C. M.
North Chili, N. Y.	A. M. Chesbrough Seminary (Chris.).	William Hoffman, principal.
Rochester, N. Y.	Rochester Theological Seminary (Bapt.).	Clarence A. Barbour, D. D.
Do.	St. Bernard's Theological Seminary (R. C.).	James J. Hartley, D. D., prorector.
St. Bonaventure, N. Y.	St. Bonaventure Seminary and College (R. C.).	Alexander M. Hickey, O. F. M.
Yonkers, N. Y.	St. Joseph's Seminary, Cathedral College (R. C.).	John P. Chidwick, D. D.
Ayden, N. C.	Ayden Seminary (Free Will Bapt.).	J. E. Sawyer, A. B.
Belmont, N. C.	Belmont Abbey Seminary (R. C.).	Rt. Rev. Leo Haid, O. S. B., D. D.
Charlotte, N. C.	Biddle University School of Theology (colored) (Presb.)	H. L. McCrorey, D. D.
Raleigh, N. C.	Shaw University Theological School (colored) (Bapt.)	Nicholas F. Roberts, D. D., dean.
Salisbury, N. C.	Hood Theological Seminary of Livingstone College (A. M. E. Z.).	William O. Carrington, D. D.
Ashland, Ohio.	Ashland College, Theological Seminary (Brethren).	J. Allen Miller, D. D.
Berea, Ohio.	Baldwin-Wallace College, Nast Theological Seminary (M. E.).	Frederic Cramer, D. D.
Carthagena, Ohio.	St. Charles Theological Seminary (R. C.).	Boniface Russ, C. PP. S.
Cincinnati, Ohio.	Hebrew Union College.	Kaufmann Kohler, Ph. D.
Do.	Lane Theological Seminary (Presb.).	William McKibbin, D. D., LL. D.
Cincinnati (Mt. Washington Station, 1).	Mount St. Mary's Seminary of the West (R. C.).	Very Rev. Frank J. L. Beckman, S. T. D.
Cleveland, Ohio.	St. Mary's Theological Seminary (R. C.).	Very Rev. James A. McFadden, rector.
Columbus, Ohio.	Evangelical Lutheran Theological Seminary, Capital University.	F. W. Stellhorn, D. D.
Dayton, Ohio.	Bonebrake Theological Seminary (U. Breth.).	Josiah P. Landis, Ph. D., D. D.
Do.	Central Theological Seminary of the Reformed Church in the United States.	Henry J. Christman, D. D.
Findlay, Ohio.	Findlay College, Department of Theology (Church of God).	William Harris Guyer, D. D., president.
Gambier, Ohio.	Kenyon College Divinity School (P. E.).	George F. Smythe, D. D.
Oberlin, Ohio.	Graduate School of Theology of Oberlin College (Nonsect.).	Edward Increase Bosworth, D. D.; George Walter Fiske, D. B.

XXII.—Presidents or Deans of Professional Schools—Continued.

1. SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Springfield, Ohio	Wittenberg College, Hamma Divinity School (Ev. Luth.).	David H. Bauslin.
Wilberforce, Ohio	Wilberforce University, Payne Theological Seminary (A. M. E.).	George F. Woodson, D. D.
Xenia, Ohio	United Presbyterian Theological Seminary	Joseph Kyle, D. D., LL. D.
Eugene, Oreg	Eugene Bible University (Chris. or Disc.)	Eugene C. Sanderson, D. D.
Salem, Oreg	Kimball School of Theology	Henry J. Talbott, D. D.
Beatty, Pa	St. Vincent's Seminary (R. C.)	Leander Schnerr, O. S. B., president.
Bethelhem, Pa	Moravian College Theological Seminary	J. Taylor Hamilton, D. D.
Chester, Pa	Crozer Theological Seminary (Bapt.)	Milton G. Evans, D. D., LL. D.
Gettysburg, Pa	Theological Seminary of the General Synod of Ev. Luth. Church in United States.	J. A. Singmaster, D. D.
Lancaster, Pa	Theological Seminary of the Reformed Church in the United States.	John C. Bowman, D. D.
Lincoln University, Pa.	Lincoln University Theological Department (Presb.).	J. B. Rendall, D. D.
Meadville, Pa	Meadville Theological School (Unita.)	Franklin C. Southworth, D. D., LL. D.
Overbrook, Pa	St. Charles Borromeo Seminary (R. C.)	Rt. Rev. Mgr. Henry T. Drumgoole, D. D., rector.
Philadelphia (Mount Airy), Pa.	Lutheran Thelogical Seminary at Philadelphia	Henry Eyster Jacobs, D. D.
Philadelphia, Pa	Divinity School of the Protestant Episcopal Church	George G. Bartlett, S. T. B.
Philadelphia (Germantown), Pa.	St. Vincent Seminary (R. C.)	Frederick J. Maune, C. M.
Philadelphia, Pa	Temple University Theological School (Nonsect.)	Walter B. Shumway, D. D.
Pittsburgh, Pa	Pittsburgh Theological Seminary (United Presb.)	John McNaugher, D. D., LL. D.
Do	Reformed Presbyterian Theological Seminary	Richard Cameron Wylie, D. D., LL. D.
Do	Western Theological Seminary (Presb.)	James A. Kelso, Ph. D., D.D.
Selinsgrove, Pa	Susquehanna University School of Theology (Ev. Luth.).	Franklin P. Manhart, D. D. dean.
Villanova, Pa	Villanova College, Augustinian Scholastic Department (R. C.).	Joseph A. Hickey, O. S. A., J. C. D., regent of studies.
Columbia, S. C	Allen University, Dickerson Theological Seminary (A. M. E.).	I. H. Alston, B. D.
Do	Columbia Theological Seminary (Presb.)	Thornton Whaling, D. D.
Do	Lutheran Theological Seminary of the United Synod.	Andrew G. Voigt, D. D., LL. D.
Due West, S. C	Erskine Theological Seminary (A. R. Presb.)	F. Y. Pressly, D. D.
Jackson, Tenn	Lane College Theological School (Colo. M. E.)	J. F. Lane, Ph. D.
Kimberlin Heights, Tenn.	Johnson Bible College	Ashley Sidney Johnson, LL. D.
Knoxville, Tenn	Knoxville College Theological School (colored) (Un. Presb.).	R. W. McGranahan, D. D.
Nashville, Tenn	Vanderbilt University School of Religion (nonsectarian).	Wilbur F. Tillett, D. D.
Sewanee, Tenn	University of the South Theological Department (P. E.)	Cleveland Keith Benedict, D. D.
Austin, Tex	Austin Presbyterian Theological Seminary	Thomas W. Currie, B. D., chairman of faculty.
Dallas, Tex	School of Theology, Southern Methodist University	Hoyt M. Dobbs, D. D.
Fort Worth, Tex	Southwestern Baptist Theological Seminary	Benajah H. Carroll, D. D., LL. D.
Do	Brite College of the Bible, Texas Christian University.	Colby D. Hall, A. M.
Marshall, Tex	Bishop College Theological Department (colored) (Bapt.).	Charles H. Maxson, B. Di.
Peniel, Tex	Peniel College Department of Theology (Nazarine)	Prof. Charles A. McConnell.
Seguin, Tex	Guadalupe College, Department of Theology (colored) (Bapt.).	
Tyler, Tex	Texas College, Theological Department (colored M. E.).	Rev. D. C. Fowler, theological teacher.
Waco, Tex	Paul Quinn College, Department of Theology (A. M. E.).	
Bridgewater, Va	Bridgewater College Bible Department (Breth.)	John S. Flory, Ph. D.
Lynchburg, Va	Virginia Theological Seminary and College (Bapt.)	Robert C. Woods, D. D.
Petersburg, Va	Bishop Payne Divinity School (P. E.)	C. B. Bryan, D. D.
Richmond, Va	Union Theological Seminary in Virginia (Presb.)	Walter W. Moore, D D., LL. D.
Do	Virginia Union University Theological Department (colored) (Bapt.).	George Rice Hovey, D. D.
Theological Seminary, Va.	Theological Seminary of the Protestant Episcopal Church in Virginia.	Berryman Green, D. D.
Bethany, W. Va	Bethany College, Department of Ministerial Education.	H. L. Calhoun, Ph. D.
Nashotah, Wis	Nashotah House (Episcopal)	Edward A. Larrabee, D. D.

XXII.—Presidents or Deans of Professional Schools—Continued.

1. SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Oconomowoc, Wis	College of the Immaculate Conception Theological School (R. C.).	Thomas P. Brown, C. SS. R., rector.
Plymouth, Wis	The Mission House of the Reformed Church	E. A. Hofer, D. D.
St. Francis, Wis	Provincial Seminary of St. Francis de Sales (R.C.).	Joseph Rainer, V. G.
Wauwatosa, Wis	Evangelical Lutheran Theological Seminary	John Schaller.

2. SCHOOLS OF LAW.

University, Ala	University of Alabama, Law Department	Albert J. Farrah, LL. B.
Tucson, Ariz	University of Arizona, Department of Law	Samuel Marks Fegtly, LL.B., professor.
Little Rock, Ark	Arkansas Law School	John H. Carmichael, LL. B.
Berkeley, Cal	University of California School of Jurisprudence	William Carey Jones, M. A.
Los Angeles, Cal	University of Southern California College of Law	Frank M. Porter, LL. M.
Do	Southwestern University, School of Law	Arthur J. Abbott, J. D.
San Francisco, Cal	Hastings College of Law, University of California	Edward R. Taylor, M. D.
Do	Law Department of St. Ignatius University	Matt. I. Sullivan, LL. D.
Do	San Francisco Law School	James A. Ballentine, A. B.
Do	San Francisco Young Men's Christian Association Law School.	J. E. White, acting dean.
Santa Clara, Cal	University of Santa Clara Institute of Law	James H. Campbell, Ph. D.
Stanford University, Cal.	Leland Stanford Junior University, Law School	Charles A. Huston, J. D. S. J. D.
Boulder, Colo	University of Colorado, School of Law	John D. Fleming, LL. D.
Denver, Colo	University of Denver Law School	George C. Manly, LL. B.
New Haven, Conn	Yale University Law School	Thomas Walter Swan, LL.B.
Washington, D. C	Catholic University of America School of Law	Thomas C. Carrigan, Ph. D., LL. D.
Do	Georgetown University School of Law	George E. Hamilton, LL. D.
Do	George Washington University Law School	Merton Le Roy Ferson, acting dean.
Do	Howard University School of Law (colored)	Benjamin F. Leighton, LL.D.
Do	National University Law School	Charles F. Carusi, LL. M.
Do	Washington College of Law	Emma M. Gillett, LL. M.
Deland, Fla	John B. Stetson University College of Law	Richard A. Rasco, LL. B.
Gainesville, Fla	University of Florida College of Law	Harry R. Trusler, LL. B.
Athens, Ga	University of Georgia, Law Department	Sylvanus Morris, LL. D.
Atlanta, Ga	Atlanta Law School	Hamilton Douglas, Ph. M., LL. B.
Do	Emory University, Lamar School of Law	William D. Thompson, acting dean.
Macon, Ga	Mercer University Law School	Emory Speer, LL. D.
Moscow, Idaho	University of Idaho College of Law	James J. Gill, LL. B., acting dean.
Bloomington, Ill	Illinois Wesleyan University, Bloomington Law School.	Charles L. Capen, A. M.
Chicago, Ill	Chicago Law School, Law Department, Midland University.	John J. Tobias, LL. B., chancellor.
Do	Chicago-Kent Law School	Edmund W. Burke, A. M.
Do	De Paul University Law School	Francis X. Busch, LL. D.
Do	Hamilton College of Law	John H. Cummings, LL. B.
Do	John Marshall Law School	Edward T. Lee, LL. B.
Do	Loyola University College of Law	
Do	Northern Illinois University Law School	Frederick Juchhoff, LL. D.
Do	Northwestern University Law School	John H. Wigmore, LL. D.
Do	University of Chicago Law School	James Parker Hall, LL. B.
Urbane, Ill	University of Illinois College of Law	Henry W. Ballantine, LL. B.
Bloomington, Ind	Indiana University School of Law	Charles M. Hepburn, LL. D.
Danville, Ind	Central Normal College School of Law	Jonathan Rigdon, Ph. D., president.
Indianapolis, Ind	Benjamin Harrison Law School	Theophilus J. Moll, LL. M.
Do	University of Indianapolis, Indiana Law School	James A. Rohbach, LL. D.
Notre Dame, Ind	University of Notre Dame, Law Department	William Hoynes, LL. D.
Valparaiso, Ind	Valparaiso University Law School	M. J. Bowman, jr., LL. B.
Des Moines, Iowa	Drake University College of Law	Edward Baker Evans, LL.M.
Iowa City, Iowa	State University of Iowa College of Law	Dudley O. McGovney, LL.B.
Lawrence, Kans	University of Kansas Law School	James W. Green, A. M.
Topeka, Kans	Washburn College School of Law	Albert J. Harno, LL. B.
Lexington, Ky	University of Kentucky College of Law	William T. Lafferty, A. M.
Louisville, Ky	Jefferson School of Law	Judge Thomas R. Gordon.
Do	State University Central Law School (colored)	William C. Brown.
Do	University of Louisville, Law Department	Charles B. Seymour, LL. B.
Baton Rouge, La	Louisiana State University, Law Department	Robert L. Tullis, LL. B
New Orleans, La	Loyola University Law School	Hugh C. Cage, LL. B.
Do	Tulane University of Louisiana College of Law	Charles Payne Fenner, LL.B.
Orono, Me	University of Maine College of Law	Robert J. Aley, LL. D.
Baltimore, Md	University of Maryland Law School	Henry D. Harlan, LL. D.

XXII.—PRESIDENTS OR DEANS OF PROFESSIONAL SCHOOLS—Continued.

2. SCHOOLS OF LAW—Continued.

Location.	Name of institution.	President or dean.
Boston, Mass.	Boston University School of Law	Homer Albers, LL. B.
Do	Portia School of Law	Arthur W. McLean, J. M.
Do	Suffolk Law School	Gleason L. Archer, LL. B.
Do	Northeastern College School of Law	Frank Palmer Speare, president.
Cambridge, Mass.	Howard University Law School	Roscoe Pound, Ph. D., LL. M., LL. D.
Ann Arbor, Mich.	University of Michaigan Law School	
Detroit, Mich.	Detroit College of Law (conducted by Detroit Young Men's Christian Association).	Benjamin D. Edwards, Ph. B., executive director; William Krichbaum, LL. B., dean.
Do	University of Detroit Law School	Judge George S. Hosmer.
Minneapolis, Minn.	University of Munnesota College of Law	William R. Vance, LL. D.
Do	Minnesota College of Law (Inc.)	George T. Simpson.
St. Paul, Minn.	St. Paul College of Law	Judge George L. Bunn.
Jackson, Miss.	Millsaps College Law School	A. H. Whitfield, LL. D.
University, Miss.	University of Mississippi, Department of Law	Leonard J. Farley, LL. D.
Columbia, Mo.	University of Missouri School of Law	George L. Clark, S. J. D., acting dean.
Kansas City, Mo.	Kansas City School of Law	Edward D. Ellison.
St. Louis, Mo.	Benton College of Law	George L. Corlis, LL. B.
Do	City College of Law and Finance	Eustace C. Wheeler, LL. B.
Do	St. Louis University Institute of Law	Paul Bakewell, LL. D.
Do	Washington University, St. Louis Law School	Richard L. Goode, LL. D.
Missoula, Mont.	University of Montana College of Law	Albert N. Whitlock, LL. B.
Lincoln, Nebr.	University of Nebraska College of Law	William Granger Hastings, A. B.
Omaha, Nebr.	Creighton University, Creighton College of Law	Paul L. Martin, LL. B.
Do	University of Omaha, Omaha School of Law	Judge Alexander C. Troup.
Newark, N. J.	New Jersey Law School	Richard D. Currier, LL. B.
Albany, N. Y.	Union University, Albany Law School	J. Newton Fiero, LL. D.
Brooklyn, N. Y.	St. Lawrence University, Brooklyn Law School	WilliamP.Richardson,LL.D.
Buffalo, N. Y.	University of Buffalo, Buffalo Law School	Carlos C. Alden, J. D.
Ithaca, N. Y.	Cornell University College of Law	Edwin H. Woodruff, LL. B.
New York, N. Y.	Columbia University School of Law	Harlan F. Stone, LL. B.
Do	Fordham University School of Law	John Whalen, LL. D.
Do	New York Law School	George Chase, LL. B.
Do	New York University Law School	Frank H. Sommer, LL. D.
Syracuse, N. Y.	Syracuse University College of Law	Frank R. Walker, LL. B.
Chapel Hill, N. C.	University of North Carolina Law Department	Lucius Polk McGehee, A. B.
Durham, N. C.	Trinity College Law School	Samuel Fox Mordecai, LL. D.
Wake Forrest, N. C.	Wake Forrest College Law School	Needham Y. Gulley, LL. D.
University, N. Dak.	University of North Dakota School of Law	George F. Wells, LL. D.
Ada, Ohio	Ohio Northern University, College of Law	Jay P. Taggart, LL. B.
Cincinnati, Ohio	University of Cincinnati, College of Law	Alfred B. Benedict, LL. B., dean.
Do	Young Men's Christian Association Night Law School.	
Cleveland, Ohio	Baldwin-Wallace College, Cleveland Law School	Willis Vickery, LL. D.
Do	Western Reserve University, Franklin T. Backus Law School.	Walter Thomas Dunmore, LL. B.
Columbus, Ohio	Ohio State University College of Law	John Jay Adams, LL. D.
Toledo, Ohio	St. John's University College of Law	John P. Manton.
Do	Toledo University College of Law	Aaron B. Cohn, LL. B.
Norman, Okla.	University of Oklahoma School of Law	Julien C. Monnet, LL. B.
Eugene, Oreg.	Law School, University of Oregon	Edward W. Hope, Ph. D.
Salem, Oreg.	Willamette University College of Law	I. H. Van Winkle, LL. B.
Carlisle, Pa.	Dickinson College, Dickinson School of Law	William Trickett, LL. D.
Philadelphia, Pa.	Temple University Law School	Francis Chapman, LL. D.
Do	University of Pennsylvania Law School	William E. Mikell, B. S., LL. M.
Pittsburgh, Pa.	Duquesne University School of Law	Judge Joseph M. Swearingen.
Do	University of Pittsburgh, Pittsburgh Law School	John Douglas Shafer, LL. D.
Manila, P. I.	University of the Philippines, College of Law	George A. Malcolm, LL. B.
Rio Piedras, Porto Rico.	University of Porto Rico College of Law	Louis W. Rapeer, Ph. D.
Columbia, S. C.	University of South Carolina Law School	Jno. Peyre Thomas, jr.
Vermilion, S. Dak.	University of South Dakota College of Law	Marshall McKusick, LL. B.
Chattanooga, Tenn.	Chattanooga College of Law	Charles R. Evans, A. M.
Knoxville, Tenn.	The University of Tennessee College of Law	Charles W. Turner, A. M.
Lebanon, Tenn.	Cumberland University Law School	Nathan Green, LL. D.
Nashville, Tenn.	Vanderbilt University Law School	John Bell Keeble, LL. B.
Austin, Tex.	University of Texas, Department of Law	John Charles Townes, LL. D.
Salt Lake City, Utah.	University of Utah College of Law	William H. Leary, J. D.
Charlottesville, Va.	University of Virginia, Department of Law	William Minor Lile, LL. D.
Lexington, Va.	Washington and Lee University School of Law	Joseph R. Long, LL. B.
Richmond, Va.	Richmond College School of Law	F. W. Boatwright, LL. D.
Seattle, Wash.	University of Washington Law School	John T. Condon, LL. M.

XXII.—Presidents or Deans of Professional Schools—Continued.

2. SCHOOLS OF LAW—Continued.

Location.	Name of institution.	President or dean.
Spokane, Wash.	Gonzaga University, Department of Law	Edward J. Cannon, LL. D.
Morgantown, W. Va.	West Virginia University College of Law	Henry Craig Jones, LL. B.
Madison, Wis.	University of Wisconsin Law School	Harry Sanger Richards, LL. D.
Milwaukee, Wis.	Marquette University College of Law	Max Schoetz, A. B., LL. B.

3. SCHOOLS OF MEDICINE.

[(H) designates the medical school as Homeopathic and (E) as Eclectic.]

Birmingham, Ala.	University of Alabama, Graduate School of Medicine.	Lewis C. Morris, M. D.
Mobile, Ala.	University of Alabama, Department of Medicine	Tucker H. Frazer, M. D.
Little Rock, Ark.	University of Arkansas, Medical Department	Morgan Smith, M. D.
Loma Linda and Los Angeles, Cal.	College of Medical Evangelists	Newton G. Evans, M. D., president.
Los Angeles, Cal.	Los Angeles Medical Department of the University of California.	George H. Kress, M. D., dean.
Do	University of Southern California, College of Physicians and Surgeons.	Charles W. Bryson, M. D.
San Francisco, Cal.	College of Physicians and Surgeons	H. D'Arcy Power, M. D.
Do	Leland Stanford Junior University School of Medicine.	William Ophuls, M. D.
Do	University of California, Medical School[1]	Herbert C. Moffitt, M. D.
Boulder and Denver, Colo.	University of Colorado, School of Medicine	Charles N. Meader, M. D.
New Haven, Conn.	Yale University, Department of Medicine	George Blumer, M. D.
Washington, D. C.	George Washington University, Medical School	William C. Borden, M. D.
Do	Georgetown University, School of Medicine	George M. Kober, M. D.
Do	Howard University, Medical College (colored)	Edward A. Balloch, M. D.
Atlanta, Ga.	Atlanta Medical College, School of Medicine, Emory University.	W. S. Elkin, M. D.
Augusta, Ga.	Medical Department, University of Georgia	William H. Doughty, jr., M. D.
Chicago, Ill.	Chicago College of Medicine and Surgery, School of Medicine of Loyola University.	Lawrence Ryan, M. D.
Do	Chicago Hospital, and Jenner, Medical College	Ezekiel P. Murdock, M. D., dean.
Do	Hahnemann Medicall College and Hospital (H)	Jos. P. Cobb, M. D.
Do	Northwestern University, Medical School	Arthur Isaac Kendall, M. D., acting dean.
Do	Rush Medical College, University of Chicago	John Milton Dodson, M. D.
Do	University of Illinois, College of Medicine	Albert C. Eycleshymer, M. D.
Bloomington and Indianapolis, Ind.	Indiana University School of Medicine	Charles P. Emerson, M. D.
Iowa City, Iowa	State University of Iowa, College of Medicine	Lee W. Dean, M. D.
Do	State University of Iowa, Homeopathic Medical Department.	George Royal, M. D.
Rosedale and Lawrence, Kans.	University of Kansas, School of Medicine	Samuel J. Crumbine, M. D., dean; Merwin T. Sudler, M. D., associate dean.
Louisville, Ky.	University of Louisville, Medical Department	Henry Enos Tuley, M. D.
New Orleans, La.	Tulane University of Louisiana, School of Medicine.	Isadore Dyer, M. D.
Brunswick and Portland, Me.	Bowdoin Medical School	Addison S. Thayer, M. D.
Baltimore, Md.	Johns Hopkins University, Medical Department	J. Whitridge Williams, M. D.
Do	University of Maryland, School of Medicine and College of Physicians and Surgeons.	J. M. H. Rowland, M. D.
Boston, Mass.	Harvard University, Medical School	Edward H. Bradford, M. D., dean.
Do	Tufts College, Medical School	Charles F. Painter, M. D.
Do	Boston University, School of Medicine (H)	John P. Sutherland, M. D.
Ann Arbor, Mich.	University of Michigan, Medical School	Victor C. Vaughan, M. D.
Do	University of Michigan, Homeopathic Medical School.	Wilbert B. Hinsdale, M. D.
Detroit, Mich.	Detroit College of Medicine and Surgery[2]	J. Henry Carstens, M. D.
Minneapolis, Minn.	University of Minnesota, Medical School	E. P. Lyon, M. D.
University, Miss.	University of Mississippi, School of Medicine	Waller S. Leathers, M. D.
Columbia, Mo.	University of Missouri, School of Medicine	Guy L. Noyes, M. D.
St. Louis, Mo.	St. Louis College of Physicians and Surgeons	Waldo Briggs, M. D.
Do	St. Louis University, School of Medicine	Hanau W. Loeb, M. D.
Do	Washington University, Medical School	Philip A. Shaffer, M. D.
Lincoln and Omaha, Nebr.	University of Nebraska, College of Medicine	Irving S. Cutter, M. D.

[1] Includes electives in homœopathy in the curriculum of the medical school.
[2] Became a part of education system of the city of Detroit, July 1, 1918.

XXII.—Presidents or Deans of Professional Schools—Continued.

3. SCHOOLS OF MEDICINE—Continued.

[(H) designates the medical school as Homeopathic and (E) as Eclectic.]

Location.	Name of institution.	President or dean.
Lincoln, Nebr.	Lincoln Medical College (E).	F. L. Wilweth, M. D.
Omaha, Nebr.	John A. Creighton Medical College	James R. Clemens, M. D.
Hanover, N. H.	Dartmouth Medical School	John M. Gile, M. D.
Albany, N. Y.	Albany Medical College, Union University	Thomas Ordway, M. D.
Brooklyn, N. Y.	Long Island College Hospital	Otto V. Huffman, M. D.
Buffalo, N. Y.	University of Buffalo, Medical Department	C. Sumner Jones, M. D.
New York, N. Y.	Columbia University College of Physicians and Surgeons.	Samuel W. Lambert, M. D.
New York and Ithaca, N. Y.	Cornell University, Medical College	Walter L. Niles, M. D., acting dean.
New York, N. Y.	Fordham University, School of Medicine	Joseph Byrne, M. D., dean.
Do.	University and Bellevue Hospital Medical College.	Samuel A. Brown, M. D., dean.
Do.	New York Homeopathic Medical College and Flower Hospital.	Royal S. Copeland, M. D.
Syracuse, N. Y.	Syracuse University, College of Medicine	John L. Heffron, M. D.
Chapel Hill, N. C.	University of North Carolina, School of Medicine	Issac H. Manning, M. D.
Raleigh, N. C.	Shaw University, Leonard Medical School (colored)	George H. Stoddard, M. D.
Wake Forest, N. C.	Wake Forest College, School of Medicine	William L. Poteat, M. D.
University, N. Dak.	University of North Dakota, School of Medicine	Harley E. French, M. D.
Cincinnati, Ohio	University of Cincinnati, College of Medicine	Christian R. Holmes, M. D.
Do.	Eclectic Medical College.	Rolla L. Thomas, M. D.
Cleveland, Ohio.	Western Reserve University, School of Medicine	Carl A. Hamann, M. D.
Columbus, Ohio.	Ohio State University, College of Medicine	E. F. McCampbell, M. D.
Do.	Ohio State University, College of Homeopathic Medicine.	Claude A. Burrett, M. D.
Norman and Oklahoma City, Okla.	University of Oklahoma, School of Medicine	Le Roy Long, M. D.
Portland, Oreg.	University of Oregon, Medical School	Kenneth A. J. Mackenzie, M. D.
Philadelphia, Pa.	Jefferson Medical College	Ross V. Patterson, M. D., dean.
Do.	Medico-Chirurgical College and Hospital, Graduate School of Medicine of the University of Pennsylvania.	
Do.	Temple University, Department of Medicine	Frank C. Hammond, M. D.
Do.	Medical School of the University of Pennsylvania	William Pepper, M. D.
Do.	Woman's Medical College of Pennsylvania and Its Hospital.	Martha Tracy, M. D.
Do.	Hahnemann Medical College and Hospital of Philadelphia (H).	W. A. Pearson, M. D.
Pittsburgh, Pa.	University of Pittsburgh, School of Medicine	Ogden Methias Edwards, jr., M. D.
Manila, P. I.	University of the Philippines, College of Medicine and Surgery.	Fernando Calderon, M. D., dean.
Charleston, S. C.	Medical College of the State of South Carolina	Robert Wilson, jr., M. D.
Vermilion, S. Dak.	University of South Dakota, College of Medicine	Christian P. Lommen, M. D.
Memphis, Tenn.	University of Tennessee, College of Medicine	A. Hermsmeier Wittenborg, M. D.
Nashville, Tenn.	Vanderbilt University, School of Medicine	B. F. Hambleton, M. D., acting dean.
Do.	Meharry Medical College (colored)	G. W. Hubbard, M. D., president.
Dallas, Tex.	Baylor University, Medical Department	Edward H. Cary, M. D.
Galveston, Tex.	University of Texas, School of Medicine	William S. Carter, M. D.
Salt Lake City, Utah.	University of Utah, School of Medicine	Perry G. Snow, B. A., M. D.
Burlington, Vt.	University of Vermont, College of Medicine	Henry C. Tinkham, M. D.
Charlottesville, Va.	University of Virginia, Medical Department	Theodore Hough, M. D.
Richmond, Va.	Medical College of Virginia	Stuart McGuire, M. D.
Morgantown, W. Va.	West Virginia University, School of Medicine	John N. Simpson, M. D.
Madison, Wis.	University of Wisconsin, Medical School	Charles R. Bardeen, M. D.
Milwaukee, Wis.	Marquette University, School of Medicine	Louis F. Jermain, M. D.

4. SCHOOLS OF DENTISTRY.

Los Angeles, Cal.	University of Southern California, College of Dentistry.	Lewis E. Ford.
San Francisco, Cal.	College of Physicians and Surgeons, Department of Dentistry.	Charles Boxton.
Do.	University of California, College of Dentistry	Guy S. Millberry.
Denver, Colo.	Colorado College of Dental Surgery, University of Denver.	H. A. Fynn.
Washington, D. C.	George Washington University, Department of Dentistry.	Oscar B. Hunter, M. D.
Do.	Georgetown University, Dental Department	Shirley W. Bowles, D.D.S.
Do.	Howard University, Dental College (colored)	Edward A. Balloch, M. D.
Atlanta, Ga.	Atlanta Dental College	Claude Hughes.
Do.	Southern Dental College	Sheppard W. Foster.

XXII.—Presidents or Deans of Professional Schools—Continued.

4. SCHOOLS OF DENTISTRY—Continued.

Location.	Name of institution.	President or dean.
Chicago, Ill	Chicago College of Dental Surgery, Valparaiso University.	Truman W. Brophy, LL.D.
Do	Northwestern University, Dental School	Thomas L. Gilmer, M. D.
Do	University of Illinois, College of Dentistry	Frederick B. Moorehead, M. D.
Indianapolis, Ind	Indiana Dental College, University of Indianapolis.	Frederic R. Henshaw.
Valparaiso, Ind	Valparaiso University, College of Dentistry	Truman W. Brophy.
Iowa City, Iowa	State University of Iowa, College of Dentistry	Frank T. Breene.
Louisville, Ky	Louisville College of Dentistry, Central University of Kentucky.	William E. Grant.
New Orleans, La	Loyola School of Dentistry, Loyola University	Jules J. Sarrazin.
Do	Tulane University of Louisiana, School of Dentistry.	Wallace Wood, jr.
Baltimore, Md	Baltimore College of Dental Surgery	W. G. Foster.
Do	University of Maryland, Dental Department	Timothy O. Heatwole.
Boston, Mass	Harvard University, Dental School	Eugene Hanes Smith.
Do	Tufts College, Dental School	William Rice.
Ann Arbor, Mich	University of Michigan, College of Dental Surgery.	Marcus L. Ward.
Minneapolis, Minn	University of Minnesota, College of Dentistry	Alfred Owre.
Kansas City, Mo	Kansas City Dental College	Charles C. Allen.
Do	Western Dental College	R. J. Rinehart, secretary.
St. Louis, Mo	St. Louis University, School of Dentistry	James P. Harper.
Do	Washington University, School of Dentistry	John H. Kennerly.
Lincoln, Nebr	Lincoln Dental College	Wallace Clyde Davis.
Omaha, Nebr	Creighton University, College of Dentistry	A. Hugh Hipple.
Jersey City, N. J	College of Jersey City, Department of Dentistry	Herbert S. Sutphen.
Buffalo, N. Y	University of Buffalo, College of Dentistry	Daniel H. Squire.
New York, N. Y	College of Dental and Oral Surgery of New York	William Carr, M. D.
Do	Columbia University, Dental School	James C. Egbert, director.
Do	New York College of Dentistry	Alfred R. Starr.
Cincinnati, Ohio	Cincinnati College of Dental Surgery	G. S. Junkerman, M. D.
Do	Ohio College of Dental Surgery	Henry T. Smith.
Cleveland, Ohio	Western Reserve University, Dental School	Frank M. Casto.
Columbus, Ohio	Ohio State University, College of Dentistry	Harry M. Semans.
Portland, Oreg	North Pacific College of Dentistry	Herbert C. Miller.
Philadelphia, Pa	Philadelphia Dental College, Temple University	I. Norman Broomell, D. D. S.
Do	Thomas W. Evans Museum and Dental Institute, School of Dentistry, University of Pennsylvania.	Charles R. Turner, M. D.
Pittsburgh, Pa	University of Pittsburgh, School of Dentistry	H. Edmund Friesell.
Memphis, Tenn	College of Dentistry, University of Tennessee	Joseph A. Gardner.
Nashville, Tenn	Vanderbilt University, Dental Department	Henry W. Morgan
Do	Meharry Dental College (colored)	G. W. Hubbard, M. D., president.
Dallas, Tex	College of Dentistry, Baylor University	J. S. Wright.
Houston, Tex	Texas Dental College	O. F. Gambati.
Richmond, Va	School of Dentistry, Medical College of Virginia	J. A. C. Hoggan, chairman of faculty.
Milwaukee, Wis	Marquette University, Dental Department	Henry L. Banzhaf, D. D. S.

5. SCHOOLS OF PHARMACY.

Auburn, Ala	Alabama Polytechnic Institute, Pharmacy Department.	L. S. Blake, M. S.
Mobile, Ala	University of Alabama, Department of Pharmacy.	Tucker H. Frazer.
Los Angeles, Cal	University of Southern California, College of Pharmacy.	Laird J. Stabler, M. S.
San Francisco, Cal	California College of Pharmacy, University of California.	Franklin T. Green.
Do	College of Physicians and Surgeons, Department of Pharmacy.	John Henry Flint.
Boulder, Colo	University of Colorado, College of Pharmacy	Francis Ramaley, Ph. D., acting dean.
Washington, D. C	George Washington University, National College of Pharmacy.	H. E. Kalusowski.
Do	Howard University, Pharmaceutic College (colored).	Edward A. Balloch, M.D.
Athens, Ga	University of Georgia, School of Pharmacy	Robert C. Wilson, head of department.
Atlanta, Ga	Atlanta College of Pharmacy	George F. Payne.
Do	Southern College of Pharmacy	R. C. Hood.
Chicago, Ill	Central States College of Pharmacy	George Louis Secord, Ph. G.
Do	University of Illinois, School of Pharmacy	William B. Day, acting dean.
Angola, Ind	Tri-State College of Pharmacy	C. C. Sherrard.
Indianapolis, Ind	Indianapolis College of Pharmacy	Ferd. A. Mueller.
Lafayette, Ind	School of Pharmacy, Purdue University	Charles B. Jordan, M. S.
Notre Dame, Ind	University of Notre Dame, School of Pharmacy	Robert Lee Green.
Valparaiso, Ind	Valparaiso University, Department of Pharmacy.	G. D. Timmons, B. S.

XXII.—PRESIDENTS OR DEANS OF PROFESSIONAL SCHOOLS—Continued.

5. SCHOOLS OF PHARMACY—Continued.

Location.	Name of institution.	President or dean.
Des Moines, Iowa	Highland Park College of Pharmacy and Chemistry	Elbert O. Kagy, Ph. C., director.
Iowa City, Iowa	State University of Iowa, College of Pharmacy	Wilber J. Teeters, M. S.
Lawrence, Kans	University of Kansas, School of Pharmacy	Lucius E. Sayre, M. S.
Louisville, Ky	Louisville College of Pharmacy	Oscar C. Dilly.
New Orleans, La	New Orleans College of Pharmacy (affiliated with Loyola University).	Philip Asher.
Do	Tulane University of Louisiana, School of Pharmacy.	Isadore Dyer.
Orono, Me	University of Maine, Department of Pharmacy	William A. Jarrett.
Baltimore, Md	Department of Pharmacy, University of Maryland	Daniel Base, Ph. D.
Boston, Mass	Massachusetts College of Pharmacy	Theodore J. Bradley.
Ann Arbor, Mich	University of Michigan, College of Pharmacy	A. B. Stevens, dean.
Big Rapids, Mich	Ferris Institute, Pharmacy Department	M. A. Jones, principal.
Minneapolis, Minn	University of Minnesota, College of Pharmacy	Frederick J. Wulling, Ph. D.
University, Miss	University of Mississippi, School of Pharmacy	Henry M. Faser.
Kansas City, Mo	Kansas City College of Pharmacy and Natural Sciences.	David V. Whitney.
St. Louis, Mo	St. Louis College of Pharmacy	Henry M. Whelpley, M. D.
Missoula, Mont	University of Montana, School of Pharmacy	Charles E. Mollet, dean.
Lincoln, Nebr	University of Nebraska, College of Pharmacy	Rufus A. Lyman, A. M.
Omaha, Nebr	Creighton University, Department of Pharmacy	Howard C. Newton.
Jersey City, N. J	College of Jersey City, Department of Pharmacy	Joseph Koppel.
Newark, N. J	New Jersey College of Pharmacy	William O. Kuebler.
Albany, N. Y	Albany College of Pharmacy, Union University	William Mansfield.
Brooklyn, N. Y	Brooklyn College of Pharmacy	William C. Anderson.
Buffalo, N. Y	Buffalo College of Pharmacy, University of Buffalo.	Willis G. Gregory.
New York, N. Y	College of Pharmacy of the City of New York Columbia University.	Henry H. Rusby.
Do	Fordham University, College of Pharmacy	Jacob Diner, dean
Chapel Hill, N. C	University of North Carolina, Department of Pharmacy.	Edward V. Howell, A. B.
Raleigh, N. C	Leonard School of Pharmacy, Shaw University	George H. Stoddard, A. M.
Agricultural College, N. Dak.	North Dakota Agricultural College, School of Pharmacy.	E. F. Ladd, LL. D.
Ada, Ohio	Ohio Northern University, College of Pharmacy	
Cincinnati, Ohio	Cincinnati College of Pharmacy	Walter R. Griess.
Cleveland, Ohio	Cleveland School of Pharmacy, Western Reserve University.	Edward Spease, dean.
Columbus, Ohio	Ohio State University, College of Pharmacy	Clair A. Dye, acting dean.
Toledo, Ohio	Toledo University, College of Pharmacy	William McKendre Reed.
Norman, Okla	State University of Oklahoma, School of Pharmacy	Howard S. Browne.
Corvallis, Oreg	Oregon Agricultural College, School of Pharmacy	Adolph Zeifle, B. S., dean.
Portland, Oreg	North Pacific College of Pharmacy	Herbert C. Miller.
Philadelphia, Pa	Philadelphia, College of Pharmacy	Howard B. French, Ph. G.
Do	Temple University, Department of Pharmacy	John R. Minehart, M. D.
Pittsburgh, Pa	Pittsburgh College of Pharmacy, University of Pittsburgh.	Julius A. Koch.
Rio Piedras, Porto Rico	University of Porto Rico, College of Pharmacy	Louis W. Rapeer, Ph. D.
Providence, R. I	Rhode Island College of Pharmacy and Allied Sciences.	Edwin E. Calder.
Charleston, S. C	Medical College of State of South Carolina, Department of Pharmacy.	Robert Wilson, jr.
Brookings, S. Dak	South Dakota State College of Agriculture and Mechanic Arts, Department of Pharmacy.	Earl R. Serles, professor.
Memphis, Tenn	School of Pharmacy of The University of Tennessee	A. Hermsmeier Wittenborg, M. D.
Nashville, Tenn	Vanderbilt University, School of Pharmacy	J. T. McGill.
Do	Meharry College of Pharmacy (colored)	G. W. Hubbard, M. D., president.
Dallas, Tex	Baylor University, College of Pharmacy	Edward H. Cary, M. D. (acting dean).
Galveston, Tex	University of Texas, School of Pharmacy	William S. Carter.
Salt Lake City, Utah	University of Utah, School of Pharmacy	Le Roy Dey Swingle, Ph. D.
Richmond, Va	School of Pharmacy, Medical College of Virginia	A. Bolenbaugh, B. S., chairman of faculty.
Pullman, Wash	State College of Washington, School of Pharmacy	P. H. Dustine, acting head.
Seattle, Wash	University of Washington, College of Pharmacy	Charles W. Johnson, Ph. D.
Morgantown, W. Va	Department of Pharmacy, West Virginia University.	John N. Simpson.
Madison, Wis	University of Wisconsin course in Pharmacy	Edward Kremers, director.

6. SCHOOLS OF VETERINARY MEDICINE.

Auburn, Ala	Alabama Polytechnic Institute, College of Veterinary Medicine.	C. A. Cary.
San Francisco, Cal	San Francisco Veterinary College	M. J. O'Rourke, president.
Fort Collins, Colo	Colorado Agricultural College, Division of Veterinary Medicine.	George H. Glover.

XXII.—Presidents or Deans of Professional Schools—Continued.

6. SCHOOLS OF VETERINARY MEDICINE—Continued.

Location.	Name of institution.	President or dean.
Washington, D. C	George Washington University, College of Veterinary Medicine.	David E. Buckingham.
Do	United States College of Veterinary Surgeons	Hulbert Young.
Chicago, Ill	Chicago Veterinary College	Joseph Hughes.
Do	McKillip Veterinary College	Charles Frazier, dean.
Indianapolis, Ind	Indiana Veterinary College	George H. Roberts.
Terre Haute, Ind	Terre Haute Veterinary College	C. I. Fleming, dean.
Ames, Iowa	Iowa State College, Division of Veterinary Medicine	Charles H. Stange.
Manhattan, Kans	Kansas State Agricultural College, Veterinary Department.	
East Lansing, Mich	Michigan Agricultural College, Veterinary Division	Richard P. Lyman.
Grand Rapids, Mich	Grand Rapids Veterinary College [1]	C. S. McGuire.
Columbia, Mo	University of Missouri, Department of Veterinary Science.	John Waldo Connaway, D. V. S., chairman.
Kansas City, Mo	Kansas City Veterinary College	Albert T. Kinsley.
St. Joseph, Mo	St. Joseph Veterinary College	R. C. Moore.
Reno, Nev	University of Nevada, State Veterinary Control Service.	Edward Records, V. M. D., director.
Ithaca, N. Y	New York State Veterinary College at Cornell University.	Veranus A. Moore.
New York, N. Y	New York State Veterinary College at New York University.	W. Horace Hoskins.
Agricultural College, N. Dak.	North Dakota Agricultural College, School of Veterinary Medicine and Surgery.	A. F. Schalk.
Cincinnati, Ohio	Cincinnati Veterinary College	Louis P. Cook.
Columbus, Ohio	Ohio State University College of Veterinary Medicine.	Oscar V. Brumley, acting dean.
Corvallis, Oreg	Oregon Agricultural College, Department of Veterinary Medicine.	Bennett T. Simms, Chief in Veterinary Medicine.
Philadelphia, Pa	University of Pennsylvania, School of Veterinary Medicine.	Louis A. Klein.
Pullman, Wash	Washington State College, Veterinary Department.	Sofus B. Nelson.

[1] Has discontinued sessions for the period of the war.

XXIII.—Principals of Normal and Kindergarten Training Schools.

1. PUBLIC NORMAL SCHOOLS.[1]

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
ALABAMA.			
Daphne	State Normal School	Coed	Hilary H. Holmes.
Florence	do	Coed	Henry J. Willingham.
Jacksonville	do	Coed	C. W. Daugette.
Livingston	do	Coed	George W. Brock.
Montgomery	State Colored Normal School	Coed	J. W. Beverly.
Moundville	State Normal School	Coed	Raleigh W. Greene.
Normal	Agricultural and Mechanical College for Negroes.	Coed	Walter S. Buchanan.
Troy	State Normal School	Coed	E. M. Shackelford.
Tuskegee	Tuskegee Normal and Industrial Institute (colored).	Coed	Robert R. Moton.
ARIZONA.			
Flagstaff	Northern Arizona Normal School	Coed	G. E. Cornelius
Tempe *	Tempe Normal School of Arizona	Coed	Arthur J. Matthews
ARKANSAS.			
Conway	Arkansas State Normal School	Coed	Burr W. Torreyson.
Pine Bluff	Branch Normal College (colored)	Coed	J. G. Ish, Jr.
CALIFORNIA.			
Arcata	Humboldt State Normal School	Coed	N. B. Van Matre.
Chico	State Normal School	Coed	C. M. Osenbaugh.
Fresno	do	Coed	C. L. McLane.
Los Angeles	do.*	Coed	Ernest C. Moore.
San Diego	do	Coed	Edward L. Hardy.
San Francisco	do.*	Coed	Frederick Burk.
San Jose	do.*	Coed	Morris Elmerl Dailey.
Santa Barbara	State Normal School of Manual Arts and Home Economics.	Coed	Clarence L. Phelps.

[1] Institutions starred (*) have kindergarten training departments.

XXIII.—Principals of Normal and Kindergarten Training Schools—Contd.

1. PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
COLORADO.			
Gunnison	Colorado State Normal School	Coed	James H. Kelley.
CONNECTICUT.			
Bridgeport	Bridgeport City Normal School	Coed	Edward E. Cortright.
Danbury	State Normal Training School	Coed	John R. Perkins.
New Britain	do.*	Coed	Marcus White.
New Haven	do	Coed	Arthur B. Morrill.
Willimantic	do	Coed	George H. Shafer.
DISTRICT OF COLUMBIA.			
Washington	J. Ormond Wilson Normal School*	Coed	Anne M. Goding.
Do	Myrtilla Miner Normal School*(colored).	Coed	Lucy E. Moten.
GEORGIA.			
Athens	State Normal School	Coed	Jere M. Pound.
Atlanta	Atlanta Normal Training School	Coed	Mary W. Postell.
Milledgeville	Georgia Normal and Industrial College	Women.	Marvin M. Parks.
Valdosta	Southern Georgia State Normal College	Women.	Richard H. Powell.
IDAHO.			
Albion	State Normal School	Coed	George A. Axline.
Lewiston	do	Coed	Oliver M. Elliott.
ILLINOIS.			
Carbondale	Southern Illinois State Normal University.	Coed	Henry W. Shryock.
Charleston	Eastern Illinois State Normal School	Coed	Livingston C. Lord.
Chicago	Chicago Normal School*	Coed	Wm. B. Owen.
De Kalb	Northern Illinois State Normal School	Coed	John W. Cook.
Macomb	Western Illinois State Normal School	Coed	Walter P. Morgan.
Normal	Illinois State Normal University*	Coed	David Felmley.
INDIANA.			
Fort Wayne	Fort Wayne Normal School	Coed	Flora Wilber.
Indianapolis	Indianapolis Normal School	Coed	Marion Lee Webster.
Muncie	Indiana State Normal School, Eastern Division.	Coed	B. F. Moore, dean.
Terre Haute	Indiana State Normal School	Coed	William W. Parsons.
IOWA.			
Shenandoah	Western Normal College	Coed	Charles F. Garrett.
KANSAS.			
Emporia	State Normal School*	Coed	Thomas W. Butcher.
Hays	Fort Hays Kansas Normal School	Coed	William A. Lewis.
Pittsburg	State Manual Training Normal School*	Coed	W. A. Brandenburg.
KENTUCKY.			
Bowling Green	Western Kentucky State Normal School	Coed	H. H. Cherry.
Frankfort	State Normal and Industrial Institute for Colored Persons.	Coed	Green P. Russell.
Louisville	Louisville Normal School*	Coed	Elizabeth Breckinridge.
Richmond	Eastern Kentucky State Normal School	Coed	T. J. Coates.
LOUISIANA.			
Natchitoches	Louisiana State Normal School	Coed	Victor L. Roy.
New Orleans	New Orleans Normal School*	Coed	Margaret C. Hanson.
MAINE.			
Castine	Eastern State Normal School	Coed	Albert F. Richardson.
Farmington	Farmington State Normal School	Coed	Wilbert G. Mallett.
Fort Kent	Madawaska Training School	Coed	Mary P. Nowland.
Gorham	Western State Normal School	Coed	Walter E. Russell.
Lewiston	Lewiston Normal Training School	Coed	Adelaide V. Finch.
Machias	Washington State Normal School	Coed	William L. Powers.
Presque Isle	Aroostook State Normal School	Coed	San Lorenzo Marriman.

XXIII.—Principals of Normal and Kindergarten Training Schools—Contd.

1. PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
MARYLAND.			
Baltimore	Baltimore Teachers Training School	Coed	Norman W. Cameron.
Do	Colored Training School	Coed	Joseph H. Lockerman.
Bowie	Maryland State Normal and Industrial School (colored).	Coed	D. S. S. Goodloe.
Frostburg	Maryland State Normal School	Coed	James Widdowson.
Towson	do	Coed	Henry S. West.
MASSACHUSETTS.			
Boston	Boston Normal School *	Coed	Wallace C. Boyden.
Do	Massachusetts Normal Art School	Coed	James F. Hopkins.
Bridgewater	State Normal School *	Coed	Arthur C. Boyden.
Fitchburg	do.*	Coed	John G. Thompson.
Framingham	do	Coed	James Chalmers.
Hyannis	do	Coed	Wm. A. Baldwin.
Lowell	do	Coed	John J. Mahoney.
North Adams	do	Coed	Frank F. Murdock.
Salem	do	Coed	Joseph Asbury Pitman.
Westfield	do	Coed	Clarence A. Brodeur.
Worcester	do.*	Coed	Wm. B. Aspinwall.
MICHIGAN.			
Detroit	Detroit City Normal School *	Coed	John F. Thomas.
Kalamazoo	Western State Normal School *	Coed	Dwight B. Waldo.
Marquette	Northern State Normal School *	Coed	James H. Kaye.
Mount Pleasant	Central State Normal School *	Coed	Eugene C. Warriner.
Ypsilanti	Michigan State Normal College *	Coed	Charles McKenny.
MINNESOTA.			
Duluth	State Normal School *	Coed	Eugene W. Bohannon.
Mankato	do.*	Coed	Chas. H. Cooper.
Moorhead	do.*	Coed	Frank A. Weld.
St. Cloud	do	Coed	Joseph C. Brown.
Winona	State Normal School *	Coed	Guy E. Maxwell.
MISSISSIPPI.			
Hattiesburg	Mississippi Normal College	Coed	Joe Cook.
MISSOURI.			
Cape Girardeau	State Normal School	Coed	W. S. Dearmont.
Jefferson City	Lincoln Institute (colored)	Coed	Clement Richardson.
Kirksville	State Normal School	Coed	John R. Kirk.
Maryville	do*	Coed	Ira Richardson.
St. Louis	Harris Teachers College*	Women.	E. George Payne.
Springfield	State Normal School*	Coed	Clyde M. Hill.
Warrensburg	do*	Coed	Eldo L. Hendricks.
MONTANA.			
Dillon	Montana State Normal School	Coed	Joseph E. Monroe.
NEBRASKA.			
Chadron	State Normal School	Coed	Robert I. Elliott.
Kearney	do*	Coed	George S. Dick.
Peru	do*	Coed	E. L. Rouse.
Wayne	do*	Coed	U. S. Conn.
NEW HAMPSHIRE.			
Keene	State Normal School	Coed	Wallace E. Mason
Plymouth	do	Coed	Ernest L. Silver.
NEW JERSEY.			
Jersey City	Teachers' Training School	Coed	Joseph H. Brensinger.
Montclair	New Jersey State Normal School*	Coed	Chas. S. Chapin.
Newark	do*	Coed	W. S. Willis.
Paterson	Paterson Normal Training School	Coed	Frank W. Smith.
Trenton	New Jersey State Normal School*	Coed	Jerohn J. Savitz.
NEW MEXICO.			
El Rito	Spanish-American Normal School	Coed	Roscoe R. Hill.
East Las Vegas	New Mexico Normal University	Coed	Frank H. H. Roberts.
Silver City	New Mexico Normal School	Coed	E. L. Enloe.

XXIII.—Principals of Normal and Kindergarten Training Schools—Contd.

1. PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
NEW YORK.			
Albany	Teachers' Training School*	Coed	Thomas S. O'Brien.
Brockport	State Normal and Training School	Coed	Alfred C. Thompson.
Brooklyn	Training School for Teachers *	Coed	Emma L. Johnston.
Buffalo	State Normal School *	Coed	
Cohoes	Cohoes Training School	Coed	
Cortland	State Normal and Training School *	Coed	Harriet L. Knapp.
Fredonia	....do*	Coed	Harry De W. De Groat.
Geneseo	Geneseo State Normal School *	Coed	Myron T. Dana.
Jamaica	Training School for Teachers	Coed	James V. Sturges.
New Paltz	State Normal School *	Coed	Archibald C. McLachlan.
New York	New York Training School for Teachers *	Coed	John C. Bliss.
Oneonta	State Normal School *	Coed	Hugo Newman.
Oswego	....do*	Coed	Percy I. Bugbee.
Plattsburg	State Normal School	Coed	James G. Riggs.
Potsdam	State Normal and Training School *	Coed	Geo. K. Hawkins.
Rochester	City Normal School *	Coed	Jeremiah M. Thompson.
Schenectady	Teachers' Training School	Coed	Edward J. Bonner.
Syracuse	Syracuse Training School for Teachers*	Coed	Granville B. Jeffers.
Watertown	Watertown Training School	Coed	J. Edward Banta.
Yonkers	Yonkers Training School for Teachers	Coed	Ella Marie Walradt.
		Coed	Eleanor M. Taylor.
NORTH CAROLINA.			
Cullowhee	Cullowhee Normal and Industrial School	Coed	A. C. Reynolds.
Elizabeth City	State Colored Normal School	Coed	P. W. Moore.
Fayetteville	....do	Coed	E. E. Smith.
Greenville	East Carolina Teachers' Training School	Coed	Robt. H. Wright.
Greensboro	State Normal and Industrial College	Women	Julius I. Foust.
Pembroke	Indian Normal College	Coed	H. A. Neal.
Winston-Salem	Slater Industrial and State Normal School (colored).	Coed	S. G. Atkins.
NORTH DAKOTA.			
Ellendale	State Normal and Industrial School	Coed	Ryland M. Black.
Mayville	State Normal School	Coed	Thos. A. Hillyer.
Minot	....do	Coed	A. G. Crane.
Valley City	....do.*	Coed	Geo. A. McFarland.
OHIO.			
Akron	Perkins Normal School	Coed	W. J. Bankes.
Athens	State Normal College	Coed	John J. Richeson.
Bowling Green	....do	Coed	Homer B. Williams.
Cleveland	Cleveland Normal Training School	Coed	Ambrose L. Suhrie.
Columbus	Columbus Normal School	Coed	Margaret W. Sutherland.
Dayton	Dayton Normal School	Coed	Grace A. Greene.
Kent	State Normal College*	Coed	John E. McGilvrey.
Oxford	Teachers College	Coed	Harvey C. Minnich.
OKLAHOMA.			
Ada	East Central State Normal School	Coed	J. M. Gordon.
Alva	Northwestern State Normal School	Coed	A. S. Faulkner.
Durant	Southeastern State Normal School	Coed	T. D. Brooks.
Edmond	Central State Normal School	Coed	J. W. Graves.
Langston	Colored Agricultural and Normal University.	Coed	John M. Marquess.
Tahlequah	Northeastern State Normal School	Coed	G. W. Gable.
Weatherford	Southwestern State Normal School	Coed	James B. Eskridge.
OREGON.			
Monmouth	State Normal School	Coed	John H. Ackerman.
PENNSYLVANIA.			
Bloomsburg	State Normal School	Coed	D. J. Waller, jr.
California	Southwestern State Normal School	Coed	Walter S. Hertzog.
Clarion	State Normal School	Coed	Clyde C. Green.
East Stroudsburg	....do	Coed	E. L. Kemp.
Edinboro	State Normal School	Coed	Frank E. Baker.
Erie	Erie Normal Training School	Coed	Celestia J. Hershey.
Harrisburg	Teachers' Training School	Coed	Anne U. Wert.
Indiana	State Normal School	Coed	John A. H. Keith.
Kutztown	Keystone State Normal School	Coed	A. C. Rothermel.
Lock Haven	Central State Normal School *	Coed	Charles Lose.
Mansfield	State Normal School	Coed	Wm. R. Straughn.
Millersville	....do	Coed	C. H. Gordinier.
Philadelphia	Philadelphia Normal School for Girls*	Women	J. Eugene Baker.
Do	Philadelphia School of Pedagogy	Men	Francis B. Brandt.
Shippensburg	Cumberland Valley State Normal School	Coed	Ezra Lehman.
Slippery Rock	State Normal School	Coed	J. Linwood Eisenberg.
West Chester	....do	Coed	George M. Philips.

XXIII.—Principals of Normal and Kindergarten Training Schools—Contd.

1. PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
RHODE ISLAND.			
Providence	Rhode Island State Normal School*	Coed.	John L. Alger.
SOUTH CAROLINA.			
Orangeburg	Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.	Coed.	Robert S. Wilkinson.
Rockhill	Winthrop Normal and Industrial College*	Women.	David B. Johnson.
SOUTH DAKOTA.			
Aberdeen	Northern Normal and Industrial School	Coed.	Ethelbert C. Woodburn.
Madison	State Normal School*	Coed.	John W. Heston.
Spearfish	....do	Coed.	Fayette L. Cook.
Springfield	....do	Coed.	Gustav G. Wenzlaff.
TENNESSEE.			
Johnson City	East Tennessee State Normal School	Coed.	Sidney G. Gilbreath.
Memphis	West Tennessee State Normal School	Coed.	A. A. Kincannon.
Murfreesboro	Middle Tennessee State Normal School	Coed.	R. L. Jones.
Nashville	State Agricultural and Industrial Normal School for Negroes.	Coed.	William J. Hale.
TEXAS.			
Canyon	West Texas State Normal College	Coed.	R. B. Cousins.
Commerce	East Texas Normal College	Coed.	R. B. Binnion.
Denton	North Texas State Normal College	Coed.	W. H. Bruce.
Huntsville	Sam Houston State Normal Institute*	Coed.	H. F. Estill.
Prairie View	Prairie View State Normal and Industrial College (colored).	Coed.	J. G. Osborne, acting.
San Marcos	Southwest Texas State Normal School	Coed.	C. E. Evans.
VERMONT.			
Castleton	State Normal School	Coed.	Charles A. Adams.
Johnson	....do	Coed.	Bessie B. Goodrich.
VIRGINIA.			
East Radford	State Normal School for Women	Women.	John P. McConnell.
Farmville	....do.*	Women.	Joseph L. Jarman.
Fredericksburg	State Nornaml and Industrial School for Women.	Women.	E. H. Russell.
Hampton	Hampton Normal and Agricultural Institute (colored).	Coed.	James E. Gregg.
Harrisonburg	State Normal and Industrial School for Women.*	Women.	Julian A. Burress.
Petersburg	Virginia Normal and Industrial Institute (colored).	Coed.	John M. Gandy.
WASHINGTON.			
Bellingham	State Normal School	Coed.	George W. Nash.
Cheney	....do	Coed.	Noah D. Showalter.
Ellensburg	....do.*	Coed.	George H. Black.
WEST VIRGINIA.			
Athens	Concord State Normal School	Coed.	L. B. Hill.
Fairmont	State Normal School	Coed.	Joseph Rosier.
Glenville	....do	Coed.	E. G. Rohrbough.
Huntington	Marshall College, State Normal School	Coed.	O. I. Woodley.
Institute	West Virginia Collegiate Institute (colored).	Coed.	Byrd Prillerman.
Shepherdstown	Shepherd College, State Normal School	Coed.	Thomas C. Miller.
West Liberty	State Normal School	Coed.	John C. Shaw.
WISCONSIN.			
Algoma	Door-Kewaunee County Training School	Coed.	Millard Tufts.
Alma	Buffalo County Training School	Coed.	B. F. Oltman.
Antigo	Langlade County Training School	Coed.	W. E. Smith.
Berlin	Green Lake County Training School	Coed.	C. D. Lamberton
Columbus	Columbia County Training School	Coed.	M. C. Palmer.
Eau Claire	Eau Claire County Training School	Coed.	F. E. Jaastad.
Do	State Normal School	Coed.	Harvey A. Schofield.
Gays Mills	Crawford County Training School	Coed.	B. W. Weenink.
Grand Rapids	Wood County Training School	Coed.	M. H. Jackson
Janesville	Rock County Training School	Coed.	Grank J. Lowth.
La Crosse	State Normal School	Coed.	Fassett A. Cotton.
Ladysmith	Rusk County Training School	Coed.	B. Mack Dresden.

XXIII.—Principals of Normal and Kindergarten Training Schools—Contd.

1. PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution	For men, for women, or coeducational.	Principal.
WISCONSIN—continued.			
Manitowoc	Manitowoc County Training School	Coed	Fred Christiansen.
Marinette	Marinette County Training School	Coed	A. M. Olson.
Medford	Taylor County Training School	Coed	J. H. Wheelock.
Menomonie	Dunn County Training School	Coed	G. L. Bowman.
Do	Stout Institute	Coed	L. D. Harvey.
Merrill	Lincoln County Training School	Coed	E. W. McCrary.
Milwaukee	State Normal School *	Coed	Carroll G. Pearse.
Monroe	Green County Training School	Coed	C. H. Deitz.
New London	Waupaca County Training School	Coed	Ellis Calef.
Oshkosh	State Normal School	Coed	H. A. Brown.
Phillips	Price County Training School	Coed	William Milne.
Platteville	State Normal School	Coed	Asa M. Royce.
Reedsburg	Sauk County Training School	Coed	Martin Stenerson.
Rhinelander	Oneida County Training School	Coed	M. V. Boyce.
Rice Lake	Barren County Training School	Coed	G. E. Pratt.
Richland Center	Richland County Training School	Coed	L. C. Johnson.
River Falls	State Normal School	Coed	Jesse H. Ames
St. Croix Falls	Polk County Training School	Coed	C. L. Hill.
South Kaukauna	Outagamie County Training School	Coed	John E. Hale.
Stevens Point	State Normal School	Coed	John F. Sims.
Superior	State Normal School *	Coed	V. E. McCaskill.
Viroqua	Vernon County Training School	Coed	A. E. Smith.
Wausau	Marathon County Training School	Coed	Randall Johnson.
Wautoma	Waushara County Training School	Coed	G. E. Dafoe.
Whitewater	State Normal School	Coed	Albert H. Yoder.

2. PRIVATE NORMAL SCHOOLS.

Pea Ridge, Ark	Pea Ridge Masonic College	Coed	A. Carnahan.
Denver, Colo	Denver Normal and Preparatory School	Coed	M. F. Miller.
New Haven, Conn	New Haven Normal School of Gymnastics.	Coed	Ernest H. Arnold.
Chicago, Ill	American College of Physical Education	Coed	Morey A. Wood.
Do	Chicago Normal School of Physical Education.	Women	Frances Musselman.
Do	Technical Normal School of Chicago	Coed	L. Mary Sherwood.
Oak Park, Ill	Concordia Teachers College	Coed	W. C. Kohn.
Angola, Ind	Tri-State College	Coed	Littleton M. Sniff.
Danville, Ind	Central Normal College	Coed	Jonathan Rigdon.
Indianapolis, Ind	Teachers College of Indianapolis	Women	Mrs. Eliza A. Blaker.
Do	Normal College of the North American Gymnasium Union.	Coed	Emil Rath.
Marion, Ind	Marion Normal Institute	Coed	C. C. Thomas.
Lexington, Ky	Chandler Normal School (colored)	Coed	Frederick J. Werking.
Louisa, Ky	Kentucky Normal College	Coed	Walter M. Byington.
Ammendale, Md	Ammendale Normal Institute	Men	Brother Philip.
Boston, Mass	American School for Physical Education	Women	Mary R. Mulliner.
Do	Posse Normal School of Gymnastics	Coed	Hartvig Nissen.
Do	Sloyd Training School	Coed	Gustaf Larsson.
Cambridge, Mass	Sargent School for Physical Education	Women	Dudley A. Sargent.
Battle Creek, Mich	Normal School of Physical Education	Coed	Frank J. Born.
Detroit, Mich	Thomas Normal Training School	Coed	Jennie L. Thomas.
Madison, Minn	Lutheran Normal School	Coed	K. Lokensgard.
New Ulm, Minn	Dr. Martin Luther College	Coed	John Meyer.
Fremont, Nebr	Fremont College	Coed	W. H. Clemmons.
Santee, Nebr	Santee Normal Training School (Indian)	Coed	Frederick B. Riggs.
Newark, N. J	Newark Normal School for Physical Education and Hygiene.	Coed	Randall D. Warden.
Raleigh, N. C	St. Augustine's School (colored)	Coed	Edgar H. Goold.
Woodville, Ohio	Woodville Lutheran Normal School	Coed	K. Hemminghaus.
Mt. Angel, Oreg	Mt. Angel Normal School	Women	Sister Mary Rose.
Cheyney, Pa	Cheyney Training School (colored)	Coed	Leslie P. Hill.
Philadelphia, Pa	Gratz College (Hebrew Normal)	Coed	Henry M. Speaker.
Charleston, S. C	Avery Normal Institute (colored)	Coed	B. F. Cox.
Sioux Falls, S. Dak	Augustana College and Lutheran Normal School.	Coed	H. S. Hilleboe.
Memphis, Tenn	Le Moyne Normal Institute (colored)	Coed	Edgar Clippinger.
Morristown, Tenn	Morristown Normal and Industrial College (colored).	Coed	Judson S. Hill.
Harpers Ferry, W. Va	Storer College (colored)	Coed	Henry T. McDonald.
Smoot, W. Va	Greenbrier Normal School	Coed	L. O. Haynes.
Milwaukee, Wis	National Teachers Seminary	Coed	Max Griebsch.
St. Francis, Wis	Catholic Normal School	Men	Joseph F. Barbian.

XXIII.—Principals of Normal and Kindergarten Training Schools—Contd.

3. KINDERGARTEN TRAINING SCHOOLS.

[For kindergarten departments in normal schools see names of institutions starred (*) in list 1.]

Location.	Name of institution.	Principal.
Berkeley, Cal.	Barnard Kindergarten Training School	Grace Everett Barnard.
Los Angeles, Cal.	Miss Fulmer's School	Grace Fulmer.
Pasadena, Cal.	Broadoaks Kindergarten Training School	Ada Mae Brooks.
Greeley, Colo.	Kindergarten Department, the State Teachers College.	Mildred Julian.
Bridgeport, Conn.	Froebel Normal Kindergarten-Primary Training School.	Mary C. Mills.
Do.	The Fannie A. Smith Froebel Kindergarten Training School.	Fannie A. Smith.
Hartford, Conn.	Culver-Smith Kindergarten Training School	M. Lima Culver and Louise Smith.
Washington, D. C.	Columbia Kindergarten Training School	Misses Lippincott and Baker.
Do.	Kindergarten Department, Howard University (colored).	Martha MacLear.
Tallahassee, Fla.	Kindergarten Department, State College for Women.	Mabel Wheeler.
Atlanta, Ga.	Kindergarten Department, Atlanta University (colored).	Gertrude H. Ware.
Columbus, Ga.	Free Kindergarten Association Training School	Edwina Wood.
La Grange, Ga.	Kindergarten Department, Training School at La Grange Settlement.	Marguerite Murphy.
Savannah, Ga.	Kate Baldwin Free Kindergarten Association Training School.	Hortense M. Orcutt.
Honolulu, Hawaii	Honolulu Free Kindergarten Training School	Frances Lawrence.
Chicago, Ill.	Chicago Kindergarten Institute	Mrs. Mary B. Page.
Do.	Kindergarten Department, School of Education, Chicago University.	Alice Temple.
Do.	National Kindergarten and Elementary College.	Elizabeth Harrison.
Do.	Pestalozzi-Froebel Kindergarten Training School.	Mrs. B. H. Hegner.
Indianapolis, Ind.	The Teachers' College of Indianapolis	Mrs. Eliza A. Blaker.
South Bend, Ind.	The South Bend Training School	
Cedar Falls, Iowa.	Kindergarten Department, Iowa State Teachers College.	Corinne Brown.
Des Moines, Iowa.	Kindergarten Department, Drake University	Irene Hirsch.
Baltimore, Md.	Affordby Kindergarten Normal School	Elizabeth Silkman.
Do.	Kindergarten Department, Goucher College	Stella A. McCarty.
Boston, Mass.	Miss Niel's Training School for Kindergartners.	Harriet Niel.
Do.	The Perry Kindergarten Normal School	Mrs. Harriot H. Jones.
Do.	Miss Wheelock's Kindergarten Training School	Lucy Wheelock.
Do.	Susan E. Blow Training School for Kindergartners.	Laura Fisher.
Cambridge, Mass.	Lesley Normal School	Mrs. Edith L. Wolfard.
Springfield, Mass.	Springfield Kindergarten Training School	Hattie Twichell.
Alma, Mich.	Kindergarten Department, Alma College	Caroleen Robinson.
Big Rapids, Mich.	Kindergarten Department, Ferris Institute	Flora Sawtelle.
Grand Rapids, Mich.	Grand Rapids Kindergarten Training School	Clara Wheeler.
Minneapolis, Minn.	Minneapolis Kindergarten Association, Normal School.	Stella L. Wood.
St. Louis, Mo.	Kindergarten Training School, 5460 Delmar Blvd.	Mabel A. Wilson.
Fremont, Nebr.	Kindergarten Department, Fremont College	Eva Mixer.
Lincoln, Nebr.	Kindergarten Department, University of Nebraska.	Clara O. Wilson.
Omaha, Nebr.	Kindergarten Department, University of Omaha.	Emma Ghering.
University Place, Nebr.	Kindergarten Department, Nebraska Wesleyan University.	Lilian Beach.
East Orange, N. J.	Miss Cora Webb Peet's Kindergarten Normal Training School.	Cora Webb Peet.
Buffalo, N. Y.	Kindergarten Department, Teachers Training School.	Ella C. Elder.
Herkimer, N. Y.	Kindergarten Department, Folts Mission Institute.	Amy Quackenbush.
New York (Brooklyn).	Kindergarten Department, Adelphi Normal School for Kindergartners.	Anna E. Harvey.
New York, N. Y.	Kindergarten Normal Department, Ethical Culture School.	Jessica E. Beers.
Do.	Training School of the Froebel League	Mrs. Marion B. B. Langzettel.
Do.	Jenny Hunter Kindergarten Training School	Jenny Hunter.
Do.	Harriette M. Mills Kindergarten Training School.	Harriette M. Mills.
Do.	Kindergarten Department, Hunter College of the City of New York.	Marie Bell Coles.
New York, N. Y.	Kindergarten Department, Teachers College, Columbia University.	Patty Smith Hill.
Athens, Ohio.	Kindergarten Department, Ohio University	Constance T. McLeod.
Cincinnati, Ohio.	Cincinnati Kindergarten Association Training School.	Lilian H. Stone.
Do.	Kindergarten Department, Cincinnati Missionary Training School.	Lottie M. Sinnett.
Cleveland, Ohio.	Cleveland Kindergarten Training School	Netta Faris.
Oberlin, Ohio.	Oberlin Kindergarten Training School	Clara May.

XXIII.—Principals of Normal and Kindergarten Training Schools—Contd.

3. KINDERGARTEN TRAINING SCHOOLS—Continued.

Location.	Name of institution.	Principal.
Toledo, Ohio	Law Froebel Kindergarten Training School	Mary E. Law.
Portland, Oreg	Kindergarten Department, St. Helen's Hall	Minnie M. Glidden.
Harrisburg, Pa	Froebel Kindergarten Training School	Evelyn Barrington.
Philadelphia, Pa	Miss Hart's Training School	Adelaide T. Illman.
Do	Kindergarten Department, Temple University	Lucinda P. MacKenzie.
Pittsburgh, Pa	Kindergarten Department, Training School for Teachers, Colfax School No. 1.	Alice Parker.
Do	School of Childhood, University of Pittsburgh	Meredith Smith.
Greenville, S. C	Kindergarten Department, Greenville Female College.	Kitty T. Perrin.
Dallas, Tex	Dallas Free Kindergarten Training School and Industrial Association.	Mary K. Drew.
Denton, Tex	Kindergarten Department, College of Industrial Arts.	Mabel M. Osgood.
Fort Worth, Tex	Fort Worth Kindergarten Training School	Mary G. Waite.
San Antonio, Tex	San Antonio Kindergarten Training School	Elizabeth Moore.
Provo, Utah	Kindergarten Department, Brigham Young University.	Ida S. Dusenberry.
Salt Lake City, Utah	Kindergarten Department, University of Utah	Rose Jones.
Norfolk, Va	Kindergarten Association Training School	Lilian Wadsworth.
Richmond, Va	Richmond Training School for Kindergartners[1].	Mary E. Pennell.

[1] Absorbed into Richmond City Normal Training School.

XXIV.—Vocational Education.

1. STATE OFFICIALS IN CHARGE OF VOCATIONAL EDUCATION.

States.	Division designation.	Staff.	Official position.
Alabama	State department of public instruction, Montgomery.	V. P. McKinley	State director industrial education.
		J. B. Hobdy	State supervisor agricultural education.
Arizona	State department of vocational education, Phoenix.	Isadore Colodny	State director vocational education.
Arkansas	State board of education, Little Rock.	N. M. Whaley	State director vocational agriculture.
California	Division of vocational education, State department of public instruction, Sacramento.	Connie Bonslagel	Supervisor home economics.
		Edwin R. Snyder	Commissioner of vocational education.
		J. B. Lillard	State supervisor agricultural instruction.
		J. C. Beswick	State director vocational war work.
		Charles L. Jacobs	State supervisor of teacher training for trades and industries.
		G. W. Galbraith	Do.
		W. G. Hummel	State supervisor of teacher training for agriculture.
		S. H. Dadisman	Do.
		Maude I. Murchie	State supervisor of teacher training for home economics.
Colorado	State board of agriculture, Denver.	C. G. Sargent	State director of vocational education.
Connecticut	State board of education, Hartford.	Frederick J. Trinder	State director vocational education.
		Henry C. Morrison	Assistant secretary and supervisor agricultural education.
		T. H. Eaton	Assistant supervisor agricultural education.
Delaware	State board of education, Dover.	A. R. Spaid	Commissioner.
		L. C. Armstrong	State supervisor agricultural education.
		J. T. Ryan	In charge of training teachers of trades and industries.
		H. T. Ruhl	In charge of training teachers of agriculture.
		S. Helen Bridge	In charge of training teachers of home economics.
Florida	State board of education, Tallahassee.	W. N. Sheats	State director vocational education.
		Shelton Phillips	State supervisor agricultural education.
		Edith Thomas	State supervisor home economics.

XXIV.—Vocational Education—Continued.

1. STATE OFFICIALS IN CHARGE OF VOCATIONAL EDUCATION—Continued.

States.	Division designation.	Staff.	Official position.
Georgia	State board for vocational education, Atlanta.	J. S. Stewart	Inspector vocational schools.
		E. P. Tracey	Supervisor industrial education.
		R. D. Maltby	Supervisor agricultural education.
		Eda Lord Murphy	Supervisor home economics.
		Edna M. Randall	Do.
		Julia Robertson	Do.
Hawaii	Department of public instruction, Honolulu.	Ken C. Bryan	Vocational supervisor for Oahu.
		Lester Hull	Vocational supervisor for Hawaii.
		E. Allen Creevey	Vocational supervisor for Kauai.
		R. C. Bowman	Vocational supervisor for Maui.
Idaho	State board of education, Boise.	Enoch A. Bryan	State director vocational education.
		C. B. Wilson	Supervisor agricultural education.
		Amy Kelly	Supervisor home economics.
Illinois	State board for vocational education, Springfield.	Francis W. Shepardson.	Secretary.
		E. A. Wreidt	State supervisor industrial education.
		A. W. Nolan	State supervisor agricultural education.
		Cora I. Davis	State supervisor home economics.
Indiana	State board of education, Indianapolis.	J. G. Collicott	Deputy State superintendent for vocational education.
		Z. M. Smith	Supervisor agricultural education.
		Bertha Latta	Supervisor home economics.
Iowa	State board for vocational education, Des Moines.	W. H. Bender	State director vocational education and supervisor agricultural education.
Kansas	State board of education, Topeka.	H. L. Kent	State director vocational education and supervisor agricultural education.
Kentucky	State department of education, Frankfort.	McHenry Rhoades	State director of vocational education.
Louisiana	State board of education, Baton Rouge.	P. L. Guilbeau	State supervisor of agricultural education.
		Cleora C. Helbing	State supervisor of home economics.
Maine	State board for vocational education, Augusta.	Augustus O. Thomas	Chairman and State director for vocational education.
		Paul H. Smiley	Supervisor of industrial education.
		Herbert S. Hill	Supervisor of agricultural education.
		Bernardine Cooney	Supervisor of home economics.
Maryland	State department of education, Baltimore.	G. H. Reavis	State director vocational education.
		L. A. Emerson	Supervisor industrial education.
		H. F. Cotterman	Supervisor vocational agriculture.
		Agnes Saunders	Supervisor home economics.
Massachusetts	Department of vocational education, State board of education, Boston.	Robert O. Small	Deputy commissioner for vocational education.
		Charles R. Allen	Agent, industrial education.
		Rufus W. Stimson	Agent, agricultural education.
		Chester L. Pepper	Assistant agent, vocational education.
		Louisa I. Pryor	Agent, girls' home-making and trade schools.
		Caroline E. Nourse	Assistant agent, in charge of evening practical arts work.
		M. Norcross Stratton	In charge of training teachers of trades and industries.
		Franklin E. Heald	In charge of training agricultural teachers.
		Anna M. Kloss	In charge of training household arts teachers.
		Anna C. Hanrihan	Assistant in charge of training household arts teachers.

XXIV.—Vocational Education—Continued.

1. STATE OFFICIALS IN CHARGE OF VOCATIONAL EDUCATION—Continued.

States.	Division designation.	Staff.	Official position.
Michigan	State board for vocational education, Lansing.	George W. Myers	State supervisor industrial education.
		E. E. Gallup	Supervisor agricultural education.
Minnesota	State high school board, St. Paul.	Martha H. French	Supervisor home economics.
		E. M. Phillips	State director vocational education.
		G. A. McGarvey	Supervisor industrial education.
		B. M. Gile	Supervisor agricultural education.
Mississippi	State board for vocational education, Jackson.	Mildred Weigley	Supervisor home economics.
		F. J. Hubbard	Director vocational agricultural education.
		S. J. Greer	Assistant director vocational agricultural education
Missouri	State board of education, Jefferson City.	J. D. Elliff	State director vocational education and supervisor agricultural education.
Montana	State board of education, Helena.	L. R. Foote	State supervisor industrial education.
		M. J. Abbey	Supervisor agricultural education.
Nebraska	State board for vocational education, Lincoln.	Lucile Reynolds	Home demonstration agent.
		C. A. Fulmer	State director vocational education.
		C. W. Watson	Supervisor agricultural education.
Nevada	State board of education, Carson City.	Alice M. Loomis	Supervisor home economics.
New Hampshire	State board for vocational education, Concord.	Leslie E. Brigham	State director vocational education
New Jersey	Division of vocational education, State department public instruction, Trenton.	George H. Whitcher	Deputy State superintendent for vocational education.
		Wesley A. O'Leary	Assistant commissioner of education.
		Arthur K. Getman	Assistant for agricultural education.
		J. Gould Spofford	Assistant for training of teachers.
		Iris Prouty O'Leary	Assistant for home economics.
New Mexico	Division of vocational education, State department of education, Santa Fe.	Mrs. Ruth C. Miller	State director vocational education and supervisor home economics.
		A. B. Anderson	Supervisor industrial education.
		E. D. Smith	Supervisor agricultural education.
New York	Division of agricultural and industrial education, State department of education, Albany.	Lewis A. Wilson	Director of division.
		Royal B. Farnum	Specialist in industrial education.
		Arthur K. Getman	Specialist in agricultural education.
		Carl E. Ladd	Do.
		Arthur P. Williams	Do.
		Leon L. Winslow	Specialist in drawing and industrial training.
		Eleanor D. Toaz	Specialist in vocational education for girls.
North Carolina	State board for vocational education, Raleigh.	T. E. Browne	State director vocational education.
North Dakota	State department of public instruction, Bismarck.	Minnie L. Jamison	Supervisor home economics.
Ohio	State board of education, Columbus.	N. C. Macdonald	State superintendent
		E. L. Heusch	State director vocational education.
		Dean Alfred Vivian	Supervisor agricultural education.
		W. F. Stewart	Assistant supervisor agricultural education.
Oklahoma	State board of education, Oklahoma.	Mrs. Maud G. Adams	Supervisor home economics.
		S. M. Barrett	Secretary and State director vocational education.
		W. R. Curry	State supervisor agricultural education.
		Avis Guinn	State supervisor home economics.
Oregon	State board of education, Salem	J. A. Churchill	State director vocational education.
		Frank H. Sheperd	State supervisor industrial education.

XXIV.—Vocational Education—Continued.

1. STATE OFFICIALS IN CHARGE OF VOCATIONAL EDUCATION—Continued.

States.	Division designation.	Staff.	Official position.
Oregon (Continued.)	State board of education, Salem.	H. P. Barrows	State supervisor agricultural education.
		Hattie Dahlberg	State supervisor home economics.
Pennsylvania	Vocational division, State board of education, Harrisburg.	Millard B. King	State director industrial education.
		William P. Loomis	Supervisor industrial education.
		Wallace E. Hackett	Do.
		J. K. Bowman	Do.
		Lindley H. Dennis	State director agricultural education.
		H. C. Fetterolf	Supervisor agricultural education.
		Miss Anna G. Green	Supervisor home economics.
		Anne C. Perry	Do.
Philippine Islands.	Bureau of Education, Manila.	W. W. Marquardt	Director of education.
		H. E. Cutler	Chief of industrial division.
		S. J. Rowland	Assistant chief.
		North H. Foreman	Inspector of school gardens and grounds.
Porto Rico	Division of education, San Juan.		Supervisor of manual arts.
		Grace J. Ferguson	Supervisor of home economics.
		A. J. Sykes	Supervisor of agriculture.
Rhode Island	State board of education, Providence.	Walter E. Ranger	State commissioner of education.
South Carolina	State board of education, Columbia.	C. S. Doggett	State supervisor industrial education.
		Verd Peterson	State supervisor agricultural education.
		Edna F. Coith	State supervisor home economies.
South Dakota	State board of education, Pierre	E. C. Stivers	State supervisor agricultural education.
		Eva R. Robinson	Supervisor of home economics.
Tennessee	State board of education, Nashville.	Albert Williams	State director vocational education.
Texas	State board of education, Austin.	N. S. Hundson	State supervisor industrial education.
		J. D. Blackwell	Supervisor agricultural education.
		R. G. Bressler	Do.
		Nina Creigler	Supervisor home economics.
Utah	State board of education, Salt Lake City.	F. W. Kirkham	State director vocational education.
		Lon J. Haddock	Supervisor industrial education.
		I. B. Ball	Supervisor agricultural education.
		Jean Cox	Supervisor home economics.
Vermont	State board of education, Montpelier.	Leon H. Beach	State director vocational education.
		H. H. Gibson	Supervisor agricultural education.
		Julia Hurd	Supervisor home economics.
Virginia	State board of education, Richmond.	Thomas D. Eason	State director vocational education.
Washington	State board of education, Seattle.	C. R. Frazier	State director of vocational education.
		H. M. Skidmore	Supervisor agricultural education.
West Virginia	State board of regents, Charleston.	J. F. Marsh	Secretary, and acting State director of vocational education.
		B. T. Leland	Supervisor industrial education.
		C. H. Winkler	Do.
		A. C. Callen	Supervisor education for miners.
		Rachel H. Colwell	Supervisor home economics.
Wisconsin	State board for vocational education, Madison.	John Callahan	Executive secretary, and State director of vocational education.
		W. S. Welles	Supervisor agricultural education.
Wyoming	State board of education, Laramie.	James R. Coxen	State director vocational education.

XXIV.—Vocational Education—Continued.

2. DIRECTORS OF TEACHER-TRAINING COURSES.

(a) *Manual Arts and Trades and Industries.*

This table contains the names of persons reported as in charge of courses for the preparation of special teachers or directors or supervisors of the manual arts, or of trades and industries.

Location.	Institution.	Director.
ALABAMA.		
Auburn	Alabama Polytechnic Institute	M. T. Fullan.
Florence	State Normal School	R. W. Sharpe.
Jacksonville	do	A. L. Young.
Livingston	do	T. B. Ray.
Montevallo	Alabama Girls' Technical Institute	
Montgomery	State Normal School for Negroes	J. W. Beverly.
Normal	Agricultural and Mechanical College for Negroes	W. S. Buchanan.
Troy	State Normal School	W. B. Speer.
Tuscaloosa	University of Alabama	V. P. McKinley.
Tuskegee	Tuskegee Normal and Industrial Institute (colored).	R. R. Moton.
ARIZONA.		
Flagstaff	State Normal School	G. G. Morgan.
Tempe	do	A. B. Clark.
Tuscon	University of Arizona	W. W. Henley.
ARKANSAS.		
Fayetteville	University of Arkansas	H. C. Givens.
CALIFORNIA.		
Berkeley	University of California	Charles L. Jacobs.
Chico	State Normal School	Eva M. Ealand.
Fresno	do	W. B. Givens.
Los Angeles	do	G. W. Galbraith, for trades and industries.
Do	do	Harold W. Mansfield (acting), for manual training.
San Diego	do	Mary Benton.
San Francisco	California School of Mechanical Arts	George A. Merrill.
San Jose	State Normal School	William S. Marten.
Santa Barbara	State Normal School of Manual Arts and Home Economics.	N. Dana Cook.
Stanford University	Leland Stanford Junior University	E. P. Lesley.
COLORADO.		
Fort Collins	State Agricultural College	L. D. Crain.
CONNECTICUT.		
Hartford	Hillyer Institute	H. F. Stuart.
Bridgeport	State Trade Education Shop	Herbert J. Hanson.
South Manchester	do	James C. Tucker.
Storrs	Connecticut Agricultural College	Charles L. Beach.
Torrington	State Trade School	
DELAWARE.		
Newark	Delaware College	J. T. Ryan.
DISTRICT OF COLUMBIA.		
Washington	Howard University (colored)	H. D. Hatfield.
HAWAII.		
Honolulu	Territorial Normal School	Harlan V. Roberts
IDAHO.		
Albion	State Normal School	E. A. Ball.
Lewiston	do	Mary W. McGahey.
Moscow	University of Idaho	C. B. Wilson.
Pocatello	Idaho Technical Institute	A. C. Gough.

XXIV.—Vocational Education—Continued.

2. DIRECTORS OF TEACHER-TRAINING COURSES—Continued.

(a) *Manual Arts and Trades and Industries*—Continued.

Location.	Institution.	Director.
ILLINOIS.		
Carbondale	Southern Illinois State Normal University	Louis C. Petersen.
Charleston	State Normal School	L. F. Ashley.
Chicago	Lewis Institute, Madison and Robey Streets	C. E. Hoyt.
Do	....do	G. A. Ross.
Do	University of Chicago	Emory T. Filbey.
Do	Chicago Normal College	Oscar L. McMurry.
Do	Francis W. Parker School	Leonard W. Wahlstrom.
Do	Chicago Technical College	Charles W. Morey.
Decatur	James Millikin University	L. M. Cole.
DeKalb	State Normal School	Clyan H. Hall.
Macomb	....do	E. Wayne Wetzel.
Mooseheart	Mooseheart Vocational and Industrial Institute	J. A. Rondthaler.
Normal	Illinois State Normal University	A. C. Newell.
Peoria	Bradley Polytechnic Institute	Charles A. Bennett.
Do	....do	Albert F. Siepert.
INDIANA.		
Bloomington	Indiana State University	Edwin A. Lee.
Indianapolis	Indiana State University, 1116 Merchants Bank Building.	George F. Buxton.
Lafayette	Purdue University	G. L. Roberts.
Muncie	State Normal School (branch)	O. E. Sink.
Terre Haute	Indiana State Normal School	M. L. Laubach.
IOWA.		
Cedar Falls	State Teachers College	C. H. Bailey.
Des Moines	Des Moines College	Thomas McMillan.
Iowa City	State University of Iowa (Department of Manual Arts).	R. E. Wilcox.
Shenandoah	Western Normal College	F. G. Baker.
KANSAS.		
Emporia	State Normal College	H. H. Braucher.
Hays	Fort Hays Kansas Normal School	
Lawrence	University of Kansas	A. G. Schaad.
Manhattan	Kansas State Agricultural College	W. W. Carlson.
Pittsburg	State Manual Training Normal School	A. H. Whitesett.
KENTUCKY.		
Berea	Berea College	A. E. Gladding.
Do	....do	A. N. May.
Frankfort	Kentucky Normal and Industrial Institute (colored).	G. P. Russell.
Lexington	University of Kentucky	Frank L. McVey.
Lincoln Ridge	Lincoln Institute of Kentucky (colored)	A. Eugene Thompson.
MAINE.		
Gorham	State Normal School	Paul H. Smiley.
Orono	State Agricultural College	Herbert S. Hill.
MARYLAND.		
College Park	State College of Agriculture	L. A. Emerson.
MASSACHUSETTS.		
Boston	Massachusetts Normal Art School	J. F. Hopkins.
Do	Franklin Union	W. B. Russell.
Cambridge	Harvard University	H. W. Holmes.
Fitchburg	State Normal School	W. B. Anthony.
MICHIGAN.		
Kalamazoo	State Normal School	M. J. Sherwood.
Mount Pleasant	....do	O. W. Troutman.
MINNESOTA.		
Mankato	State Normal School	C. W. Coon.
Minneapolis	University of Minnesota	G. A. McGarvey.
Moorhead	State Normal School	J. W. Eck.
St. Cloud	....do	L. A. Williams.
St. Paul	Macalester College	H. S. Alexander.
Do	University of Minnesota (College of Agriculture)	Geo. M. Brace.
St. Peter	Gustavus Adolphus College	Harry Hedberg.
Winona	State Normal School	J. H. Sandt.

XXIV.—Vocational Education—Continued.

2. DIRECTORS OF TEACHER-TRAINING COURSES—Continued.

(a) *Manual Arts and Trades and Industries*—Continued.

Location.	Institution.	Director.
MISSISSIPPI.		
Starkville	Mississippi Agricultural and Mechanical College.	J. V. Bowen.
Do	....do	M. D. Broadfoot.
MISSOURI.		
Columbia	University of Missouri	Jesse H. Coursault.
Do	....do	L. S. Griffith.
Do	....do	William E. Roberts.
MONTANA.		
Bozeman	State College of Agriculture	J. M. Hamilton.
Do	....do	R. T. Challender.
NEBRASKA		
Lincoln	University of Nebraska	C. A. Fulmer.
NEVADA.		
Reno	University of Nevada	Walter E. Clark, pres.
NEW HAMPSHIRE.		
Durham	State College of Agriculture and Mechanic Arts	R. E. Chandler.
Keene	State Normal School	C. H. C. Dudley
Plymouth	....do	C. A. King.
NEW JERSEY.		
New Brunswick	State Agricultural College	C. H. Elliott.
Trenton	State Normal School	C. A. Burt.
NEW MEXICO.		
Albuquerque	Public High School	John Milne.
East Las Vegas	State Normal University	C. D. Williams
Silver City	State Normal School	
NEW YORK.		
Albany	State College for Teachers	W. H. Douglas.
Alfred	Alfred University	C. F. Binns.
Brooklyn	Pratt Institute	S. S. Edmands.
Buffalo	State Normal School	Oakley B. Furney.
New York City	Teachers College (Columbia University)	Arthur D. Dean.
Do	New York University	C. J. Pickett.
Do	Hunter College of the City of New York	M. C. W. Reid.
Oswego	State Normal School	Joseph C. Park.
Rochester	Extension Class (Buffalo State Normal School)	Oakley B. Furney.
Do	Mechanics Institute	James F. Barker.
Syracuse	Syracuse University	J. R. Sweet.
NORTH CAROLINA.		
Greensboro	State Normal College	Miss Stephens Corrick.
Raleigh	Shaw University (colored)	G. A. Edwards.
Do	St. Augustines School	J. W. Holmes.
West Raleigh	State College of Agriculture and Engineering	T. E. Browne.
NORTH DAKOTA.		
Ellendale	State Normal School	L. B. Fields.
Fargo	North Dakota Agricultural College	E. S. Keene.
Grand Forks	University of North Dakota	V. E. Sayre.
Mayville	State Normal School	H. T. Butterfield.
Minot	....do	Harland W. Corzine.
Valley City	....do	Frank H. Selden.
OHIO.		
Athens	Ohio University	G. E. McLaughlin.
Bowling Green	State Normal College	L. L. Winslow.
Cincinnati	University of Cincinnati	D. J. MacDonald.
Cleveland	Cleveland School of Education	A. P. Fletcher.
Columbus	Ohio State University	Eldon L. Usry.
Dayton	St. John Normal School	George Deck.
Delaware	Ohio Wesleyan University	W. G. Hormell.
Kent	State Normal College	Clinton S. Van Deusen.
Oxford	Miami University	Fred C. Whitcomb.
Toledo	Toledo University	

XXIV.—Vocational Education—Continued.

2. DIRECTORS OF TEACHER-TRAINING COURSES—Continued.

(a) *Manual Arts and Trades and Industries*—Continued.

Location.	Institution.	Director.
OREGON.		
Corvallis	Oregon Agricultural College	E. D. Ressler.
PENNSYLVANIA.		
Bloomsburg	State Normal School	C. A. Chrisman.
Edinboro	do	G. B. Frost.
Indiana	do	E. M. Jackson.
Lewisburg	Bucknell University	F. E. Burpee.
Mansfield	State Normal School	L. S. Green.
Philadelphia	Philadelphia Trades School	William C. Ashe.
Do	Temple University	C. E. Karlsen.
Do	United States Shipping Board, Emergency Fleet Corporation.	Egbert E. MacNary.
Do	University of Philadelphia	William C. Ashe.
Pittsburgh	Carnegie Institute of Technology	C. B. Connelley.
Do	University of Pittsburgh	A. S. Hurrell.
State College	Pennsylvania State College	A. C. Davis.
Williamson	Williamson Trade School	James A. Pratt.
PORTO RICO.		
Rio Piedras	Normal College	
SOUTH CAROLINA.		
Clemson College	Clemson College	C. S. Doggett.
Columbia	University of South Carolina	T. A. M. Cook.
Orangeburg	Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.	M. F. Whittaker.
Do	do	R. S Wilkinson.
Do	Claffin University (colored)	W. W. Wilkins.
TENNESSEE.		
Johnson City	East Tennessee State Normal School	W. C. Wilson.
Knoxville	Knoxville College (colored)	G. W. Hurd.
Do	University of Tennessee	
Memphis	West Tennessee State Normal School	C. H. Wilson.
Murfreesboro	Middle Tennessee State Normal School	Clark Woodward.
Nashville	State Agricultural and Industrial Normal School for Negroes.	A. M. Meeks.
Do	do	F. B. Wilson.
Do	George Peabody College for Teachers	Robert W. Selvidge.
TEXAS.		
Austin	University of Texas	
Canyon City	State Normal College	R. A. Terrill.
College Station	Agricultural and Mechanical College of Texas	Martin L. Hays.
Commerce	East Texas State Normal College	H. H. Coxen.
Denton	College of Industrial Arts	
Do	North Texas State Normal School	Hugo J. P. Vitz.
Huntsville	Sam Houston Normal Institute	Arthur B. Mays.
Prairie View	State Normal and Industrial College (colored)	T. H. Brittain.
Do	do	W. P. Terrell.
San Marcos	State Normal School	F. Fuller.
UTAH.		
Logan	State Agricultural College	F. S. Harris.
Salt Lake City	University of Utah	J. H. Tipton.
VIRGINIA.		
Hampton	Hampton Normal and Agricultural Institute (colored).	H. J. DeYarmett.
Do	do	John H. Jinks.
Williamsburg	College of William and Mary	R. M. Crawford.
WASHINGTON.		
Bellingham	State Normal School	A. Gebaroff.
Cheney	do	F. E. Barr.
Ellensburg	do	H. J. Whitney.
Seattle	University of Washington	George H. Jensen.
Do	Public School Department	R. W. Moore.

XXIV.—Vocational Education—Continued.

2. DIRECTORS OF TEACHER-TRAINING COURSES—Continued.

(a) *Manual Arts and Trades and Industries*—Continued.

Location.	Institution.	Director.
WEST VIRGINIA.		
Morgantown	West Virginia University	B. T. Leland
WISCONSIN.		
Madison	University of Wisconsin	Thomas Diamond.
Menomonie	Stout Institute	Robert H. Rodgers.
Oshkosh	State Normal School	Hans W. Schmidt.
WYOMING.		
Laramie	University of Wyoming	James R. Coxen.

(b) *Agricultural Education.*

This table contains the names of persons reported as in charge of courses for the preparation of special teachers or directors or supervisors of agricultural education.

Location.	Institution.	Director.
Auburn, Ala	Alabama Polytechnic Institute	W. C. Blasingame.
Tuskegee, Ala	Tuskegee Normal and Industrial Institute (colored).	George R. Bridgeforth.
Tucson, Ariz	University of Arizona	
Fayetteville, Ark	University of Arkansas	E. B. Mathews.
Pine Bluff, Ark	Branch Normal College (colored)	N. A. Murray.
Berkeley, Cal	University of California	S. H. Dadisman (acting).
Fresno, Cal	State Normal School	S. W. Cunningham.
Fort Collins, Colo	State Agricultural College	C. G. Sargent.
Hesperus, Colo	Fort Lewis School of Agriculture, Mechanic and Household Arts.	G. F. Snyder.
Storrs, Conn	Connecticut Agricultural College	T. H. Eaton.
Newark, Del	Delaware College	H. T. Ruhl.
Gainesville, Fla	University of Florida	
Athens, Ga	State College of Agriculture	J. T. Wheeler.
Moscow, Idaho	University of Idaho	C. B. Wilson.
Urbana, Ill	University of Illinois	A. W. Nolan.
Lafayette, Ind	Purdue University	S. S. Cromer.
Ames, Iowa	Iowa State College	G. M. Wilson.
Manhattan, Kans	State Agricultural College	E. L. Holton.
Lexington, Ky	University of Kentucky	
Baton Rouge, La	State University and Agricultural and Mechanical College.	E. J. Mathie.
Orono, Me	University of Maine	Herbert S. Hill.
College Park, Md	Maryland Agricultural College	H. F. Cotterman.
Amherst, Mass	Massachusetts Agricultural College	W. H. Hart.
East Lansing, Mich	Michigan Agricultural College	W. H. French.
St. Paul, Minn	University of Minnesota	Ashley V. Storm.
Agricultural College, Miss	Mississippi Agricultural and Mechanical College	F. B. Meadows.
Alcorn, Miss	Agricultural and Mechanical College (colored)	P. S. Bowles.
Columbia, Mo	University of Missouri	R. H. Emberson.
Bozeman, Mont	State College of Agriculture and Mechanic Arts	M. J. Abbey.
Lincoln, Nebr	University of Nebraska	H. E. Bradford.
Reno, Nev	University of Nevada	
Durham, N. H	State College of Agriculture and Mechanic Arts	R. E. Chandler.
New Brunswick, N. J	Rutgers Scientific School	H. O. Sampson.
State College, N. Mex	State College of Agriculture and Mechanic Arts	J. M. McArthur.
Ithaca, N. Y	Cornell University	George A. Works.
New York, N. Y	Teachers' College, Columbia University	
Syracuse, N. Y	Syracuse University	G. A. Bricker.
West Raleigh, N. C	State College of Agriculture and Engineering	Leon E. Cook.
Fargo, N. Dak	State Agricultural College	
Columbus, Ohio	Ohio State University	W. F. Stewart.
Stillwater, Okla	State Agricultural and Mechanical College	George Wilson.
Corvallis, Oreg	Oregon Agricultural College	H. P. Barrows.
State College, Pa	Pennsylvania State College	T. I. Mairs.
Kingston, R. I	Rhode Island State College	
Clemson College, S. C	Clemson Agricultural College	Verd Peterson.
Brookings, S. Dak	State College of Agriculture and Mechanic Arts	E. D. Stivers.
Knoxville, Tenn	University of Tennessee	H. A. Morgan.
College Station, Tex	Agricultural and Mechanical College of Texas	M. L. Hayes.
Logan, Utah	Agricultural College of Utah	
Burlington, Vt	University of Vermont	F. B. Jenks.

XXIV.—Vocational Education—Continued.

2. DIRECTORS OF TEACHER-TRAINING COURSES—Continued.

(b) *Agricultural Education*—Continued.

Location.	Institution.	Director.
Blacksburg, Va	Virginia Agricultural and Mechanical College and Polytechnic Institute.	T. D. Eason.
Hampton, Va	Hampton Normal and Agricultural Institute (colored).	C. K. Graham.
Pullman, Wash	State College of Washington	H. M. Skidmore.
Morgantown, W. Va	West Virginia University	C. H. Winkler.
Madison, Wis	University of Wisconsin	J. A. James.
Laramie, Wyo	University of Wyoming	

(c) *Home economics.*

This table contains the names of persons reported by the institutions designated as in charge of courses for the preparation of special teachers of home economics.

STATE NORMAL SCHOOLS.

Location.	Institution.	Director.
ALABAMA.		
Florence	State Normal School	Corinne Neely.
ARIZONA.		
Flagstaff	Northern Arizona Normal School	Elizabeth Ryan.
Tempe	Tempe Normal School of Arizona	Winne E. Delzell.
ARKANSAS.		
Conway	State Normal School	Jessie Bourne.
CALIFORNIA.		
Chico	do	Sadie E. Stark.
Fresno	do	Mrs. Blanche W. Taft.
Los Angeles	do	Letitia Weer.
San Diego	do	Mrs. A. H. Coldwell.
San Francisco	do	Alice Spellman.
San Jose	do	Helen Mignon.
Santa Barbara	State Normal School of Manual Arts and Home Economics.	Nell A. Miller.
COLORADO.		
Gunnison	State Normal School	Faith E. Kiddoo.
GEORGIA.		
Athens	do	Edna M. Randall.
Milledgeville	Georgia Normal and Industrial College	Eda Lord Murphy.
Valdosta	Georgia State Normal College	Julia Robertson.
HAWAII.		
Honolulu	Territorial Normal School	Mrs. Jane Otremba.
IDAHO.		
Lewiston	State Normal School	Ruth Fauble.
ILLINOIS.		
Carbondale	Southern Illinois Normal University	Grace Jones.
De Kalb	Northern Illinois State Normal School	Inez Boyce.
Macomb	Western Illinois State Normal School	Eva Colby.
Normal	Illinois State Normal University	Cora I. Davis.
INDIANA.		
Terre Haute	State Normal School	Iva Rhyan.

XXIV.—Vocational Education—Continued.

2. DIRECTORS OF TEACHER-TRAINING COURSES—Continued.

(c) *Home economics*—Continued.

STATE NORMAL SCHOOLS—continued.

Location.	Institution.	Director.
KANSAS.		
Emporia	do	Elizabeth Beye.
Hays	Fort Hays, Kan., Normal School	Elizabeth J. Agnew.
Pittsburg	State Manual Training Normal School	Alba Bales.
KENTUCKY.		
Bowling Green	Western State Normal School	Iva Scott.
Richmond	Eastern State Normal School	Anna Lee Davis.
LOUISIANA.		
Natchitoches	State Normal School	Margaret W. Weeks.
MAINE.		
Farmington	do	Bernardine Cooney.
MASSACHUSETTS.		
Framingham	State Normal School	Louis A. Nicholass.
MICHIGAN.		
Kalamazoo	Western State Normal School	Mary Moore.
Marquette	Northern State Normal School	Della McCallum.
Ypsilanti	State Normal School	Mrs. Martha H. French.
MINNESOTA.		
Duluth	do	Florence Aiken.
Moorhead	do	Martha L. Metcalf.
St. Cloud	do	M. L. Giddings.
Winona	do	Harriet Folger.
MISSISSIPPI.		
Hattiesburg	Mississippi Normal College	Alice C. Tolbert.
MISSOURI.		
Cape Girardeau	State Normal School	Regina Friant.
Kirksville	do	Bess Naylor.
Marysville	do	Hettie M. Anthony.
Springfield	do	Adah Lewis.
Warrensburg	do	Nina Streeter.
MONTANA.		
Dillon	do	Eureka Nitzkowski.
NEBRASKA.		
Chadron	do	Ethel Delzell.
Kearney	do	Marion W. Wellers.
Peru	do	Mame A. Mullen.
Wayne	do	Agnes Finnigan.
NEW HAMPSHIRE.		
Plymouth	do	Mabelle Houghton.
NEW JERSEY.		
Trenton	do	Bernice C. Reaney.
NEW MEXICO.		
East Las Vegas	New Mexico Normal University	Bess Chappell.
Silver City	New Mexico Normal School	Myrtle D. Dean.
NEW YORK.		
Buffalo	State Normal School	Helen Coombs.

XXIV.—Vocational Education—Continued.

2. DIRECTORS OF TEACHER-TRAINING COURSES—Continued.

(c) *Home economics*—Continued.

STATE NORMAL SCHOOLS—continued.

Location.	Institution.	Director.
NORTH CAROLINA.		
Greensboro	State Normal and Industrial College	Minnie L. Jamison.
NORTH DAKOTA.		
Elendale	State Normal and Industrial School	Tilda R. Natwick.
Valley City	State Normal School	Fannie Sly.
OHIO.		
Athens	State Normal College	Mary Tough.
Bowling Green	do	Mary T. Chapin.
Kent	do	Bertha Louise Nixon.
Oxford	Teachers' College Miami University	Martha J. Hanna.
OKLAHOMA.		
Alva	Northwestern State Normal School	Sarah Crumley.
Durant	Southeastern State Normal School	Hallie McKinley.
PENNSYLVANIA.		
Clarion	State Normal School	Sara E. Nolin.
Indiana	do	Belle N. Rogers.
Lock Haven	Central State Normal School	Grace E. Rich.
Mansfield	State Normal School	Olive Stryker.
SOUTH CAROLINA.		
Rock Hill	Winthrop Normal and Industrial College	Edna Coith.
SOUTK DAKOTA.		
Aberdeen	Northern Normal and Industrial School	Ida L. Brooks.
TENNESSEE.		
Johnson City	East Tennessee State Normal School	Ada Lou Hornsby.
Memphis	West Tennessee State Normal School	Helen Buguo.
Murfreesboro	Middle Tennessee State Nor School	Maude Parlin.
TEXAS.		
Canyon	West Texas State Normal College	Christine N. South.
Denton	North Texas State Normal College	Jessie Rambo.
Huntsville	Sam Houston Normal Institute	Jessie Harris.
San Marcos	Southwest Texas State Normal School	Mrs. C. S. Smith.
VIRGINIA.		
East Radford	State Normal School for Women	M. Ledge Moffett.
Farmville	do	Lulu V. Walker.
Fredericksburg	State Normal and Industrial School for Women	Epsie Campbell.
Harrisonburg	do	S. Frances Sale.
WASHINGTON.		
Bellingham	State Normal School	Sarah S. Ormsby.
Ellensburg	do	Dorothy McFarlane.
WISCONSIN.		
Menomonie	Stout Institute	Daisy Kugel.
Stevens Point	State Normal School	Bessie M. Allen.

XXIV.—Vocational Education—Continued.

3. DIRECTORS OF SCHOOLS IN WHICH TRADES ARE TAUGHT.

It is intended to include in this list those schools, public and private, which offer one or more day courses which prepare students, male or female, for the mechanical trades and industries, by teaching the technic of the occupation in whole or in part, with the expectation that the training given in such course shall serve to shorten the usual period of learning or apprenticeship in the occupation.

This expectation should be justified by the provision of conditions which look definitely toward this end, and should include at least the following: (a) The students should spend not less than 10 hours (60 minutes each) per week in the practical shopwork or other technical processes of the occupation; and (b) the instructor should have had practical experience as a wage earner in the occupation for which he is giving instruction.

Location.	Institution.	Director.
ALABAMA.		
Birmingham	Central High School	J. O. Steendahl.
Tuskegee	Tuskegee Normal and Industrial Institute (colored), men.	Robert R. Taylor.
Do	Tuskegee Normal and Industrial Institute (colored), women.	Mrs. Booker T. Washington.
ARIZONA.		
Miami	Public High School	H. E. Hendrix.
Phoenix	Phoenix Union High School	Isadore Colodny.
Tempe	Tempe Normal School of Arizona	A. B. Clark.
Winslow	Public High School	
ARKANSAS.		
Fayetteville	University of Arkansas	J. C. Futrall.
Searcy	Galloway College	J. M. Williams.
Spielerville	New Subiaco Seminary	Ignatius Conrad.
CALIFORNIA.		
Alameda	Public High School	J. E. Carpenter.
Fresno	Fresno High School and Junior College	W. O. Smith.
Los Angeles	Hollywood High School	W. H. Snyder.
Do	Polytechnic High School	W. A. Dunn.
Do	Jefferson High School	Theo. Fulton.
Do	Lincoln High School	Ethel Percy Andrus.
Do	Manual Arts High School	A. E. Wilson.
Do	Boyle Heights Intermediate School	B. W. Reed
Do	Fourteenth Street Intermediate School	Frank A. Bouelle.
San Francisco	The California School of Mechanical Arts	George A. Merrill
Do	Wilmerding School of Industrial Arts	Do.
Do	Lux School of Industrial Training (girls)	Theresa M. Otto.
Do	Heald's Engineering School	W. L. Butler.
Stockton	Public High School	F. R. Love.
COLORADO.		
Denver	School of Trades	W. C. Borst.
Hesperus	Fort Lewis School of Agriculture, Mechanic and Household Arts.	G. F. Snyder.
CONNECTICUT.		
Bridgeport	State Trade Education Shop	Herbert J. Hanson.
Danbury	State Trade School	George W. Buck.
New Britain	Vocational High School, Trade Instruction Department.	Everett D. Packard.
New Haven	Boardman Apprentice Shops	Frank R. Lawrence (acting).
Putnam	State Trade Education Shop	A. S. Boynton.
South Manchester	....do	James C. Tucker.
Torrington	State Trade School	
Waterbury	Vocational High School	Harrison S. Allen.
GEORGIA.		
Brunswick	Selden Normal and Industrial Institute	H. A. Bleach.
Columbus	Industrial High School	Jas. W. Bagby.
Forsyth	Normal and Industrial School	Wm. M. Hubbard.
Fort Valley	Public High and Industrial School	H. A. Hunt.
Industrial College	Georgia State Industrial College	L. B. Thompson.
Savannah	Public High School	J. McCreary.
IDAHO.		
Boise	Public High School	Oliver O. Young.
Pocatello	....do	Cyril J. Gardner.
ILLINOIS.		
Chicago	Lane Technical High School	William J. Bogan.
Do	Harrison Technical High School	Frank L. Morse.
Do	Crane Technical High School	William J. Bartholf.
Do	Flower Technical High School	Dora Wells.
Do	School for Apprentices, Lakeside Press	E. E. Sheldon.

XXIV.—Vocational Education—Continued.

3. DIRECTORS OF SCHOOLS IN WHICH TRADES ARE TAUGHT—Continued.

Location.	Institution.	Director.
ILLINOIS—continued.		
Decatur	Public High School	G. C. Kershner.
Elgin	do	W. L. Goble.
Galesburg	do	G. H. Bridge.
Moline	Moline Manual Arts School	Henry P. Corbin.
Peoria	Bradley Polytechnic Institute	Charles A. Bennett.
Do	Manual Training High School	W. W. Brown.
Rockford	Public High School	Thomas Bjorge.
Do	Rockford School of Engineering	H. A. Talbeira.
INDIANA.		
Evansville	Central High School	John H. Peters.
Do	Public High School	Do.
Fort Wayne	Fort Wayne Vocational School	Walter E. Gordon.
Do	Vocational High School	Do.
Indianapolis	Arsenal Technical Schools	M. H. Stuart.
Richmond	Public High School	Philip C. Molter.
South Bend	Vocational School	H. M. Appleman.
Terre Haute	Vocational School for Men and Boys	Herbert Briggs.
Do	Girls' Vocational School	Do.
IOWA.		
Des Moines	Public High School	R. C. Woolman.
Sioux City	do	S. H. Wood.
KANSAS.		
Pittsburg	State Manual Training Normal College	A. H. Whitesitt.
KENTUCKY.		
Louisville	Vocational School	Ethel M. Lovell.
LOUISIANA.		
New Orleans	Isidore Newman Manual Training School	J. W. Curtis.
Do	Francis T. Nicholls Industrial School for Girls	Miss Rita Johnson.
Ruston	Louisiana Industrial Institute	J. E. Keeny.
MAINE.		
Auburn	Shoe and Leather Night School	H. H. Randall.
Portland	Public High School	Stephen E. Patrick.
Rumford	Stephens High School	Garold G. Noyes.
MARYLAND.		
Hagerstown	Trades School for Boys	H. M. Lippy.
Do	Industrial School for Boys (colored)	Benjamin Smith.
Do	Industrial School for Girls (colored)	Hattie Newman.
MASSACHUSETTS.		
Boston	Franklin Union	Walter B. Russell.
Do	North Bennet Street Industrial School	George C. Greener.
Do	Wentworth Institute	Arthur L. Williston.
	Day industrial schools.	
Beverly	Industrial School for Boys	Edgar A. Winters.
Boston	Trade School for Boys	William C. Crawford.
Do	Trade School for Girls	Florence E. Leadbetter.
Cambridge	Girls' Trade School	Maude A. Dechan.
Fall River	Diman Industrial School (boys)	Hector L. Belisle.
Holyoke	Vocational School (boys)	Russell B. Leonard.
Lowell	do	Thomas F. Fisher.
New Bedford	Industrial School (boys)	Arthur S. Allen.
Newton	Vocational School (boys)	Michael W. Murray.
Northampton	Smith's Agricultural School and Northampton School of Industries.	Herbert N. Loomis.
Quincy	Industrial School (boys)	J. Gould Spofford.
Somerville	Vocational School for Boys	Harry L. Jones.
Springfield	do	George A. Burridge (acting).
Westfield	Trade School (boys)	Burton A. Prince.
Worcester	do	Albert J. Jameson.
Do	Girls' Trade School	Helen R. Hildreth.

XXIV.—Vocational Education—Continued.

3. DIRECTORS OF SCHOOLS IN WHICH TRADES ARE TAUGHT—Continued.

Location.	Institution.	Director.
MICHIGAN.		
Cadillac	Public High School	Harlan A. Colburn.
Calumet	Public Vocational School	Harold Diemer.
Detroit	Cass Technical High School	E. G. Allen.
Grand Rapids	Junior High School	C. F. Switzer.
Iron Mountain	Public High School	Guy Hoadley.
Muskegon	Hackley Manual Training School	J. D. Bicknell.
Saginaw E. S	East Side Manual Training School	Howard Hollenbach.
Saginaw W. S	Arthur Hill Trade School	Chas. A. Hach.
MINNESOTA.		
Eveleth	Junior and Senior High Schools	Harry Lyons.
Minneapolis	Central High School	C. A. Zuppann.
Do	Girls' Vocational High School	Elizabeth M. Fish.
Do	The Dunwoody Institute	H. W. Kavel.
MISSOURI.		
Kansas City	Lathrop School of Mechanical Trades	M. G. Burton.
Do	Lincoln High School	W. T. White.
Do	Jane Hayes Gates Institute	Helen Gleason.
St. Joseph	Boys' Vocational School	Ralph W. Polk.
St. Louis	Central High School	Chester B. Curtis.
Do	David Ranken, Jr., School of Mechanical Trades.	Lewis Gustafson.
MONTANA.		
Glendive	Dawson County High School	R. L. Hunt.
Great Falls	Public High School	W. S. Tucker.
Kalispell	Flathead County High School	F. O. Randall.
NEBRASKA.		
Fremont	Public High School	L. C. Wicks.
Omaha	High School of Commerce	Dwight E. Porter.
NEVADA.		
Stewart	Stewart Institute (Government Indian School).	Thomas M. English.
NEW HAMPSHIRE.		
Claremont	Stevens High School	W. A. Pierce.
Concord	Public High School	Raymond P. Gilman.
Exeter	do	Ralph H. Bissell.
Milford	do	Roy Kimball.
Nashua	Quincy Street School	Ernest W. Beck.
NEW JERSEY.		
Atlantic City	State Aided Departments	Sylvester Pelton.
Bayonne	Bayonne Vocational School	Merritt W. Haynes.
Bloomfield	Essex County Vocational School for Girls	Robert O. Beebe.
Bordentown	New Jersey Manual Training and Industrial School for Colored Youth.	W. R. Valentine.
Cape May C. H	Cape May County Vocational School	Aaron W. Hand.
Franklin	Franklin Vocational School	Stephen M. Case.
Hoboken	Hoboken Industrial School	E. G. Traua.
Jersey City	Vocational Department, Public Elementary Schools.	Ernest B. Kent.
Do	Vocational Department, School No. 24, Virginia Avenue.	H. D. White.
Do	Vocational Department, School No. 25, Zabriskie Street.	A. O. Moncrief.
Do	Vocational Department, School No. 32, Coles Street.	W. A. Messler.
Do	William L. Dickinson High School, Technical and Industrial Department.	Frank E. Mathewson.
Newark	Boys' Vocational School	James E. Dougan.
Do	Central Commercial and Manual Training High School.	William Wiener.
Do	Newark Technical School	Daniel R. Hodgdon.
Do	Girls' Vocational School	Griselda Ellis.
Do	Fawcett School of Industrial Arts	Cephas I. Shirley.
New Brunswick	Middlesex County Vocational Schools	C. E. Parsil.
Minotola	Atlantic County Vocational School of Agriculture.	Francis G. Stockbridge.
Orange	Central Grammar School (Boys' Vocational Department.)	Frank Coulter.
Do	Central Grammar School (Girls' Vocational Department.)	Florine Welch.
Do	Central Vocational School	Stanley C. Dukeshire.
Perth Amboy	Middlesex County Vocational School No. 1	Floyd E. Stein.

XXIV.—Vocational Education—Continued.

3. DIRECTORS OF SCHOOLS IN WHICH TRADES ARE TAUGHT—Continued.

Location.	Institution.	Director.
NEW JERSEY—contd.		
Perth Amboy	Middlesex County Vocational School No. 2	John M. Shoe.
Trenton	State School of Industrial Arts	Frank F. Frederick.
West Orange	Essex County Vocational School for Boys	Robert O. Beebe.
NEW YORK.		
Albany	Albany Vocational School	
Brooklyn	Pratt Institute	S. S. Edmands.
Do	Brooklyn Vocational School	
Buffalo	Black Rock Vocational School	Samuel King.
Do	Elm Vocational School	William B. Kamprath.
Do	Peckham Vocational School	William W. Miller.
Do	Seneca Vocational School	Elmer S. Pierce.
Elmira	Elmira Vocational School	Clifford McNaught.
Gloversville	Gloversville Vocational School	
Jamestown	Jamestown Vocational School	
Mount Vernon	Mount Vernon Vocational School	Hugh Stewart.
New York City	Murray Hill Vocational School	George J. Loewy.
Do	Baron de Hirsch Trade School	J. E. G. Yalden.
Do	Boys' Vocational School	C. J. Pickett.
Do	Cooper Union	Charles R. Richards.
Do	Hebrew Technical Institute (boys)	E. S. Barney.
Do	Manhattan Trade School for Girls	Fred E. Emmons.
Do	Mechanics' Institute	Louis Rouillion.
Do	New York Trades School	Harry V. Brill.
Rochester	Rochester Shop School	V. A. Bird.
Do	Washington Junior High School Vocational School.	Do.
Do	Madison Park Vocational School	Mary E. Buckley.
Troy	Troy Vocational School	F. H. Brown.
Yonkers	Saunders Trades School	Joseph J. Eaton.
NORTH CAROLINA.		
Durham	Public High School	F. H. Hallinbech.
OHIO.		
Akron	Manual Training Courses, Central High School	L. W. Mackinnon.
Do	Manual Training Courses, South High School	C. J. Bowman.
Do	Manual Training Courses, West High School	E. L. Martin.
Do	Jennings School	H. R. Smith.
Alliance	Public High School	W. P. Plouts.
Cleveland	East Technical High School	Charles H. Lake.
Do	West Technical High School	E. W. Roshart.
Columbus	Columbus Trades School	J. C. Hambleton.
Elyria	Public High Schools	F. M. Shelton.
Fremont	do	E. W. Meyers.
Galion	do	D. E. Shaffer.
Ironton	do	C. E. McCorkle.
Piqua	do	R. M. Franz.
OKLAHOMA.		
Muskogee	Central High School	C. E. Paul.
OREGON.		
Enterprise	Public High School	R. D. McCully.
Eugene	do	Fred Chess.
Grants Pass	do	H. H. Wardrys.
Pendleton	do	H. E. Inlow.
Portland	Benson Technical High School	Charles E. Cleaveland.
Do	Franklin High School	J. R. Byrnhold.
Do	Girls' Polytechnic School	Anna E. Arnold.
Salem	Salem Senior High School	E. E. Bergman.
The Dalles	Public High School	H. L. Miller.
Woodburn	do	S. R. Close.
PENNSYLVANIA.		
Allentown	Public High School	Nelson A. Butz.
Bethlehem	do	Stanley A. Zweibel.
Do	South Side High School	James R. Barton.
Dickson	Public High School	Margaret Hayes.
Easton	do	H. A. Albright.
Ellsworth	Ellsworth-Cokeburg Cooperative Industrial School.	Samuel Clark.
Erie	Central High School	E. L. Bowman.
Hazleton	Green Street School	Gary Roddy.
Homestead	C. M. Schwab Industrial School	Rodney S. Brace.

XXIV.—Vocational Education—Continued.

3. DIRECTORS OF SCHOOLS IN WHICH TRADES ARE TAUGHT—Continued.

Location.	Institution.	Director.
PENNSYLVANIA—contd.		
Johnstown	Johnstown Vocational School	Arthur F. Payne.
Lancaster	Thaddeus Stevens Industrial School	William Mellor.
Lebanon	Public High School	I. C. White.
Locust Gap	Mount Carmel Township Vocational School	P. L. Donohoe.
New Kensington	Public High School	J. A. Miller.
Philadelphia	Franklin Institute of Mechanic Arts	William H. Thorne.
Do	Philadelphia Trades School	William C. Ash.
Do	Philadelphia Textile School	E. W. France.
Pittsburgh	Carnegie Institute of Technology, School of Applied Industries.	Clifford B. Connelley.
Do	Margaret Morrison Carnegie School	Mary B. Breed.
Reading	Cedar Street Industrial School	J. Lehn Kreider.
Scranton	The O. S. Johnson School	Robert B. Keller.
Washington	Public High School	George C. Donson.
Williamson	Williamson Free School of Mechanical Trades	Harry S. Bitting.
Wilmerding	Trades School for Boys	J. A. Broadhead.
York	Public High School	Lewis G. Crater.
PORTO RICO.		
San Juan	San Juan Technical and Vocational School	Herman Hjorth.
RHODE ISLAND.		
Providence	Technical High School	Frederic W. Putnam.
Do	Rhode Island School of Design	E. G. Radeke.
SOUTH DAKOTA.		
Sioux Falls	Public High School	Paul W. Gawne.
TENNESSEE.		
Memphis	Memphis Vocational School	John W. Curtis.
TEXAS.		
Arlington	Grubbs Vocational College	Frank P. Hall.
Austin	Texas School for the Blind	E. E. Bramlette.
Corsicana	Fred Douglas High School	G. W. Jackson.
El Paso	Public High School	W. A. Burk.
Port Arthur	....do	T. A. Butler.
San Antonio	Douglass High School	Thos. P. Holley.
Do	Main Avenue High School	H. H. Ryan.
VIRGINIA.		
Hampton	Hampton Institute, Trades School (colored)	H. J. DeYarmett.
Richmond	Virginia Mechanics Institute	Frank W. Duke.
WASHINGTON.		
Everett	Public High School, Vocational School	A. A. Kester.
Pullman	State College	Frank O. Kreager.
Seattle	Broadway High School	H. W. Mulhollan.
Do	Queen Anne High School	Charles McMabney.
Do	Seattle Engineering School (Inc.)	S. V. Bryant.
Snohomish	Public High School	William Shimmin.
Spokane	North Central High School	A. H. Benefiel.
Do	Modern Automobile Schools	C. H. Messer.
Do	The Lewis and Clark High School	Claude N. Cross.
Tacoma	Lincoln High School	Charles T. Miller.
WEST VIRGINIA.		
Institute	West Virginia Collegiate Institute (colored)	Byrd Prillerman.
WISCONSIN.		
Menomonie	Stout Institute	L. D. Harvey.
Milwaukee	Boys' Technical High School	James A. Cox.
Do	Trades School for Girls	Ora Blanchard.
Appleton	Vocational School	William F. Faulkes.
Beaver Dam	....do	John Lund.
Beloit	....do	A. G. McCreary.
Chippewa Falls	....do	A. B. Curtis.
Cudahy	....do	William Rasche.
Eau Claire	....do	Charles Beardsley.
Fond du Lac	....do	F. L. McAleavey.
Grand Rapids	....do	E. L. Hayward.
Green Bay	....do	H. G. Stewart.

XXIV.—Vocational Education—Continued.

3. DIRECTORS OF SCHOOLS IN WHICH TRADES ARE TAUGHT—Continued.

Location.	Institution.	Director.
WISCONSIN—continued.		
Janesville	Vocational School	C. F. Hill.
Kenosha	do	E. F. Randall.
La Crosse	do	John B. Coleman.
Madison	do	A. W. Siemers.
Manitowoc	do	W. F. Weisend.
Marinette	do	J. E. Fults.
Marshfield	do	Roy J. Carver.
Menasha	do	S. E. Crockett.
Menomonie	do	Fred Curran.
Milwaukee	do	R. L. Cooley.
Neenah	do	Carl Christenson.
Oshkosh	do	L. P. Whitcomb.
Racine	do	T. S. Reese.
Rhinelander	do	W. P. Colburn.
Sheboygan	do	L. R. Evans.
South Milwaukee	do	Elsie Sydow.
Stevens Point	do	G. H. Ehart.
Superior	do	J. W. Paul.
Two Rivers	do	W. T. Darling.
Wausau	do	C. O. Mulder.
Waukesha	do	G. F. Loomis.
West Allis	do	L. A. Crocker.
WYOMING.		
Douglas	Converse County High School	O. C. Swering.
Lander	Fremont County Vocational High School	J. A. Raitt.

4. DIRECTORS OF TRADE CONTINUATION SCHOOLS.

It is intended to include in this list those schools, public and private, which offer one or more courses day or evening, for the benefit of students, male or female, who seek, by means of these courses, to prepare themselves for useful employment or for promotion in their present employment, including schools offering cooperative or part-time classes, in which employed persons attend school a certain number of hours per week during working hours, or alternate between school and employment.

Location.	Institution.	Director.
ARIZONA.		
Phoenix	Union High School	Isadore Colodny.
Winslow	Continuation School	Clara L. Alden.
CALIFORNIA.		
Los Angeles	Jefferson High School	Theo. Fulton.
Do	Lincoln High School	Ethel Percy Andrus.
Stockton	Public Evening High School	Noel H. Garrison.
COLORADO.		
Denver	Evening Vocational High School	John B. Garvin.
CONNECTICUT.		
Hartford	Continuation School	William C. Holden.
New Britain	Vocational High School	Everett D. Packard.
New Haven	Boardman Apprentice Shops	Frank R. Lawrence.
Putnam	Putnam Trade School	A. S. Boynton.
Do	Public High School	Edward H. Snow.
Southington	Continuation School	R. D. Decormier.
Waterbury	do	J. D. MacDonald.
Do	Continuation School for Machine-Shop Apprentices.	John J. O'Connell.
DISTRICT OF COLUMBIA.		
Washington	Central High School	E. W. Lawrence.
GEORGIA.		
Savannah	Public High School	Charles M. Gray.
IDAHO.		
Pocatello	Public High School (cooperative course)	Walter R. Siders.

XXIV.—Vocational Education—Continued.

4. DIRECTORS OF TRADE CONTINUATION SCHOOLS—Continued.

Location.	Institution.	Director.
ILLINOIS.		
Chicago	Commercial Continuation School, 210 West Wabash Avenue.	William A. Allen.
Do.	Lane Technical High School	William J. Bogan.
Do.	Harrison Technical High School	Frank L. Morse.
Do.	Crane Technical High School	William J. Bartholf.
La Salle.	La Salle-Peru Township High School	T. J. McCormack.
Moline	Continuation School	Truman N. Jones.
Rockford	do	H. A. Taveiva.
INDIANA.		
Evansville	Central High School	John H. Peters.
Do.	Public Evening High School	John Peters.
Fort Wayne	Fort Wayne Vocational School	Walter E. Gordon.
Do.	Continuation School	Do.
Richmond	Public High School	Philip C. Molter.
South Bend	Continuation School	H. M. Appleman.
Terre Haute	Vocational School for Men and Boys	Herbert Briggs.
KENTUCKY.		
Louisville	Continuation School for Girls	Ethel M. Lovell.
LOUISIANA.		
New Orleans	T. T. Nicholls Industrial School for Girls	Rita Johnson.
MAINE.		
Auburn	Shoe and Leather Night School	H. H. Randall.
Bath	Bailey Industrial Evening School	Charles H. Watson.
Portland	Public High School	Stephen E. Patrick.
MARYLAND.		
Frederick	Night School for Boys	Roger Harley.
Do.	Night School for Girls	Edith Thomas.
MASSACHUSETTS.		
Attleboro	Evening Industrial School (men)	Lewis A. Fales.
Beverly	do	Edgar A. Winters.
Boston	Continuation School	Owen D. Evans.
Do.	Evening Trade School (men)	William C. Crawford.
Do.	North Bennet Street Industrial School	George C. Greener.
Do.	Trade School for Girls	Florence E. Leadbetter.
Cambridge	Evening Industrial School (men)	Charles M. Herlihy.
Chicopee	do	John C. Gray.
Everett	do	J. Henry Clagg.
Fall River	do	Hector L. Belisle.
Framingham	do	Ernest W. Fellows.
Holyoke	Evening Vocational School (men)	Russell B. Leonard.
Lawrence	Evening Industrial School (men)	Timothy J. Doyle.
Lowell	Evening Vocational School (men)	Thomas F. Fisher.
New Bedford	Evening Industrial School (men)	Arthur S. Allen.
Newton	Evening Vocational School (men)	Michael W. Murray.
North Attleboro	Evening Industrial School (men)	Robert J. Fuller.
Quincy	do	Albert J. Barbour.
Somerville	Evening Vocational School (men)	Harry L. Jones.
Springfield	do	George A. Burridge (acting).
Taunton	Evening Industrial School (men)	Henry W. Harrub.
Waltham	do	William D. Parkinson.
Westfield	Evening Trade School (men)	Burton A. Prince.
Worcester	do	Albert J. Jameson.
MICHIGAN.		
Calumet	Public Vocational School	Harold Diemer.
Detroit	Cass Technical High Continuation School	E. G. Allen.
Kalamazoo	Continuation School	C. G. Wenzel.
Lansing	Vocational Cooperative Course, Public High School.	E. M. Hall.
Do.	Public High School (cooperative course)	Do.
Saginaw West Side	Arthur Hill Trade School	Charles A. Hach.
MINNESOTA.		
Minneapolis	Central High School	C. A. Zuppann.
Do.	Dunwoody Institute School	H. W. Kavel.

XXIV.—Vocational Education—Continued.

4. DIRECTORS OF TRADE CONTINUATION SCHOOLS—Continued.

Location.	Institution.	Director.
MISSOURI.		
Kansas City	Lincoln High School	W. T. White.
Do	Jane Hayes Gates Institute	Helen Gleason.
St. Louis	Central High School	Chester B. Curtis.
MONTANA.		
Kalispell	Flathead County High School	F. O. Randall.
NEW HAMPSHIRE.		
Berlin	Burgess Memorial School	H. L. Moore.
NEW JERSEY.		
Bloomfield	Essex County Vocational School for Girls	Robert O. Beebe.
Newark	Bergen Street Evening High School	Morris Bamberger.
Do	East Side Evening High School	Eli Pickwick, jr.
Do	Evening Vocational School	James E. Dougan.
Do	Girls' Vocational School	Mildred E. Dallet.
Do	Newark Technical School	Daniel R. Hodgdon.
Minotola	Atlantic County Vocational School of Agriculture	Francis G. Stockbridge.
Paterson	Public High School (cooperative course)	W. H. Kortright.
Do	Public Evening High School	John Shute.
Perth Amboy	Middlesex County Evening Vocational School No. 2.	John M. Shoe.
West Orange	Essex County Vocational School	Robert O. Beebe.
NORTH CAROLINA.		
Durham	Public High School	Maude F. Rogers.
OHIO.		
Bucyrus	Part Time School	G. F. Klinefelter.
Cleveland	East Technical Night School	A. R. Roethlisberger.
Do	West Technical High School	E. W. Boshart.
Columbus	Trade School	J. C. Hambleton.
Warren	Public Evening School	Victor Geiger.
PENNSYLVANIA.		
Allentown	Continuation School (girls)	Sophia Richards.
Do	Continuation School (boys)	R. N. Neeley.
Avoca	Continuation School	Veronica Boylan.
Bangor	do	Mrs. Adele Landis.
Bethlehem	Public High School	Stanley A. Zweibel.
Do	Central Continuation School	Martha Stroman.
Do	Franklin Continuation School	Maude R. Gillett.
Boyertown	Continuation School	Mrs. Martha P. Slonaker.
Dickson	Washington Continuation School	Margaret Hayes.
Easton	Wilson Township Continuation School	Willard Osterstock.
Do	Public School District	Mrs. Adeline Cobb.
East Pittsburgh	Casino Technical Night School	C. R. Dooley.
Ellsworth	Ellsworth-Cokeburg Cooperative Industrial School.	Samuel Clark.
Erie	Continuation School	E. L. Bowman.
Fleetwood	do	Lizzie A. Waimer.
Glassport	do	John S. Hart.
Hazleton	do	Gary Roddy.
Homestead	C. M. Schwab Industrial School	Rodney S. Brace.
Jeannett	Fourth Street Continuation School	Earl Ramsey.
Johnstown	Vocational Evening School	Arthur F. Payne.
Do	Public High School (cooperative industrial course).	Do.
Lebanon	Continuation School	A. P. Mark.
Atlas	Mount Carmel Township Continuation School	P. L. Donohoe.
Milton	Continuation School	Carl L. Millward.
Peckville	Blakely Boro Continuation School	H. B. Anthony.
Perkasie	Perkasie Borough Public School	Mrs. Reba Moyer.
Philadelphia	The Franklin Institute School of Mechanic Arts.	Louis C. Robinson.
Pittsburgh	Carnegie Institute of Technology, School of Applied Industries.	Clifford B. Connelley.
Reading	Continuation Schools—Junior High	Caroline M. Reedy.
Shamokin	McKinley Continuation School, Coal Township	M. J. Conconnon.
Do	Continuation School	William F. Grow.
Simpson	Fell Township Continuation School	Miss Marie Mooty.
Souderton	Continuation School	Mrs. Reba Moyer.
Taylor	do	W. S. Robinson.
Trevorton	Zesbe Township Continuation School	John G. Forsythe.
Hanover Township, Luzerne County.	Hanover Township Vocational Evening School	Patrick Shovlin.
Wilkes-Barre	Hanover Township Continuation School	Philip J. McCabe.

XXIV.—Vocational Education—Continued.

4. DIRECTORS OF TRADE CONTINUATION SCHOOLS—Continued.

Location.	Institution.	Director.
PENNSYLVANIA—con.		
Williamsport	Williamsport Continuation School	Mrs. Mabel C. Turner.
York	Continuation School, Market Street	Charles F. Kauffman.
Do	....do	Blanche E. Spahr.
Do	Continuation School, Burrowes Building	W. G. Fishel.
Do	....do	Marguerite A. Kleinfelter.
RHODE ISLAND.		
Providence	Rhode Island School of Design	E. G. Radeke.
TENNESSEE.		
Memphis	Vocational Continuation School	John W. Curtis.
TEXAS.		
Corsicana	Fred Douglas High School	G. W. Jackson.
El Paso	Public High School	J. A. Gilkey.
Port Arthur	....do	T. A. Butler.
San Antonio	Main Avenue High School	L. W. Fox.
VERMONT.		
Springfield	Public High School (cooperative course)	W. H. Worden.
VIRGINIA.		
Newport News	Public Night School (cooperating with Newport News Shipbuilding & Dry Dock Co.).	C. Guy Via.
WASHINGTON.		
Seattle	Broadway Evening High School	A. L. Brown.
Do	Seattle Engineering School (Inc.)	S. V. Bryant.
Spokane	North Central Evening School	Ernest E. Greene.
WISCONSIN.[1]		
Menominie	Vocational School (Stout Institute)	F. L. Curran.

5. CORPORATION SCHOOLS.

This list contains the names of corporations maintaining schools, educational departments, or special classes for employees. In some cases educational work has been temporarily discontinued during the war.

Location.	Corporation.	Director of educational activities.
ARIZONA.		
Prescott	A., T. & S. F. Ry. Apprentice School	C. W. Andrews.
Winslow	....do	C. W. Smith.
CALIFORNIA.		
Bakerfield	A. T., & S. F. Ry. Apprentice School	C. W. Smith.
Needles	....do	Do
Richmond	....do	A. A. Klein.
Sacramento	S. P. Ry. Shop Apprentice School	George McCormick.
San Bernardino	A., T. & S. F. Ry. Apprentice School	C. B. Falkenstein.
San Francisco	S. P. Ry. Agency School	E. L. King.
Do	S. P. Ry. Examination Car	William Nichols.
Do	S. P. Ry. Office Work School	T. C. Edwards.
Do	Standard Oil Co	R. C. Warner.
Do	Wells Fargo Nevada National Bank	F. L. Lipman.
West Oakland	S. P. Ry. Dining Car Chefs' School	Allan Pollock.
COLORADO.		
Denver	Mountain States Telephone & Telegraph Co	Robert B. Bonney.
La Junta	A. T. & S. F. Ry. Apprentice School	H. D. Kistler.
Pueblo	....do	Do.

[1] See also list of "Vocational Schools," p. 165.

XXIV.—Vocational Education—Continued.

5. CORPORATION SCHOOLS—Continued.

Location.	Corporation.	Director of educational activities.
CONNECTICUT.		
Bridgeport	Remington Arms Union Metallic Cartridge Co	Arthur W. LeBoeuf.
Do	Bilton Machine Tool Co	A. J. Cummings.
Hartford	Pratt & Whitney Co	Ernest E. Fowler.
New Haven	Winchester Repeating Arms Co	Henry C. Link.
GEORGIA.		
Atlanta	Southern Bell Telephone & Telegraph Co	Kendall Weisiger.
ILLINOIS.		
Chicago	Addressograph Co	R. N. Fellows.
Do	Chicago Central Station Institute [1]	Ferd R. Jenkins.
Do	Lakeside Press, School for Apprentices	E. E. Sheldon.
Do	Montgomery Ward & Co	E. P. Marum.
Do	Swift & Co	I. L. Roberts.
Do	Western Electric Co	J. W. Dietz.
Do	Western Electric Co. Works Training Department.	J. J. Garvey.
Do	Western Electric Co. Installation Methods Department.	W. A. Titus.
Do	Wilson & Co	Miss Delos James.
Granite City	Commonwealth Steel Co	L. W. George.
INDIANA.		
Indianapolis	Eli Lilly & Co	W. A. Caperton.
Mishawaka	Dodge Manufacturing Co	W. L. Chandler.
IOWA.		
Clinton	Curtis Lumber & Millwork Co	E. J. Curtis.
Fort Madison	A., T. & S. F. Ry. Apprentice School	H. J. Poepsel.
KANSAS.		
Argentine	A., T. & S. F. Ry. Apprentice School	L. R. Linn.
Arkansas City	do	H. B. Gephardt.
Chanute	do	Arthur Irving.
Dodge City	do	C. J. McGregor.
Newton	do	R. E. Lewis.
Topeka	do	D. C. Davis.
Do	A., T. & S. F. Ry. System	Frank W. Thomas.
Wellington	A., T. & S. F. Ry. Apprentice School	A. C. Goodall.
MAINE.		
Bangor	Eastern Manufacturing Co	C. K. Hatfield.
MARYLAND.		
Baltimore	Consolidated Gas, Electric Light & Power Co	Douglass Burnett.
MASSACHUSETTS.		
Boston	New England Telephone & Telegraph Co	Edmund W. Longley.
Framingham	Dennison Manufacturing Co	C. E. Shaw.
MICHIGAN.		
Detroit	Burroughs Adding Machine Co., Sales Department.	C. P. Staubach.
Do	Burroughs Adding Machine Co., Manufacturing Department.	W. J. Kilpatrick.
Do	Burroughs Adding Machine Co., Service Department.	C. D. Stevens.
Do	Packard Motor Car Co., Technical Service Department.	F. C. Banks.
Do	Packard Motor Car Co., Truck Department	S. S. Merithew.
Do	Packard Motor Car Co., Motor Carriage Department.	D. C. Prentiss.
Ishpeming	Cleveland-Cliffs Iron Co	C. S. Stevenson.
Midland	Dow Chemical Co	Willis H. Clark.

[1] Bureau of education for Commonwealth Edison Co., Federal Sign System, Illinois Northern Utilities Co., Middle West Utilities Co., Public Service Co., of Northern Illinois.

XXIV.—Vocational Education—Continued.

5. CORPORATION SCHOOLS—Continued.

Location.	Corporation.	Director of educational activities.
NEW JERSEY.		
Elizabethport	Singer Manufacturing Co	R. E. von Lehn.
Newark	Prudential Insurance Co. of America	Fred W. Tasney.
Passaic	Brighton Mills	Elizabeth W. McKee.
Trenton	Thomas Maddock's Sons Co	Oliver C. Short.
West Hoboken	Schwarzenbach Huber Co	H. E. Viola.
NEW MEXICO.		
Albuquerque	A., T. & S. F. Ry. Apprentice School	G. T. Peterson.
Belen	do	A. J. Nichols.
Clovis	do	D. R. Isles.
Deming	do	A. J. Nichols.
Las Vegas	do	H. P. Leister.
Raton	do	Do.
San Marcial	do	A. J. Nichols
NEW YORK.		
Buffalo	Larkin Co	H. E. Puffer.
New York City	American Hard Rubber Co	Herman L. Engstrom.
Do	American Telephone & Telegraph Co.[1]	Karl W. Waterson.
Do	Coe-Mortimer Co	Myron S. Hazen.
Do	Consolidated Gas Co. of New York	William D. Kelley.
Do	Equitable Life Assurance Society of U. S	William Alexander.
Do	W. R. Grace & Co	Paul C. Holter.
Do	Guaranty Trust Co. of New York	A. de Wilde, jr.
Do	Jones & Baker, Office Work School	Gertrude B. Thayer.
Do	Jones & Baker, School for Salesmen	P. J. Donahue.
Do	R. H. Macy & Co	A. S. Donaldson.
Do	New York Edison Co., Educational Committee	M. F. Magalhaes.
Do	New York Edison Co., Technical School	F. C. Stockwell.
Do	New York Edison Co., Accounting School	John T. Madden.
Do	New York Edison Co., Commercial Department, Bureau of Education.	F. C. Henderschott.
Do	New York Edison Co., Commercial School	E. G. Grandstaff.
Do	New York Telephone Co	J. L. Turner.
Do	Tabulating Machine Co	Pierre Bontecou.
Do	Texas Co	L. H. Canfield.
Do	Western Electric Co., Engineering Department	W. E. Wickenden.
Do	Western Electric Co., General Sales Department	F. B. Gleason.
Do	Western Union Telegraph Co., Traffic Department.[2]	W. N. Fashbaugh.
Do	Western Electric Co., Technical correspondence courses.	Louis McKisick.
Niagara Falls	Spirella Co	W. W. Kincaid.
Schenectady	American Locomotive Co	Louis L. Park.
Do	General Electric Co., Educational Committee	E. B. Merriam.
OHIO.		
Akron	B. F. Goodrich Co	H. T. Waller.
Cleveland	Warner & Swasey Co	Kenneth W. Reed.
Dayton	National Cash Register Co	L. A. Lampman.
Middletown	American Rolling Mill Co	A. J. Beatty.
Youngstown	Youngstown Sheet & Tube Co	George B. Fout.
PENNSYLVANIA.		
Ambridge	American Bridge Co	J. E. Banks.
East Pittsburgh	Westinghouse Electric & Manufacturing Co., Electric Works.	C. R. Dooley.[3]
Do	Westinghouse Electric & Manufacturing Co., Machine Works.	R. F. Carey.
Do	Casino Technical Night School	C. R. Dooley.[3]
Ellsworth	Ellsworth Collieries Co	E. E. Bach.
Harrisburg	Elliott-Fisher Co	W. R. Busch.
Lester	Westinghouse Electric & Manufacturing Co	R. F. Carey.
Philadelphia	Atlantic Refining Co	John D. Gill.
Do	Bell Telephone Co. of Pennsylvania	J. C. Lynch.
Do	Central National Bank of Philadelphia	William Y. Conrad.

[1] The American Telephone & Telegraph Co. and associated companies, comprising the Bell System, maintain training departments and schools for the vocational training of their employees in all of the important cities of the country.

[2] Western Union Telegraph Co. schools are maintained at the larger offices of the company in practically all cities of importance in the United States.

[3] Absent on leave; C. S. Coler, acting director.

XXIV.—Vocational Education—Continued.

5. CORPORATION SCHOOLS—Continued.

Location.	Corporation.	Director of educational activities.
PENNSYLVANIA—contd.		
Philadelphia	Henry Disston & Sons	A. S. Carter.
Do	Midvale Steel Co	Ed S. Cobaugh.
Pittsburgh	A. M. Byers Co	William E. Dunham.
Do	Carnegie Steel Co.[1]	John McLeod.
Do	Mesta Machine Co	Frederick W. Hyle.
Do	Pittsburgh Railways Co	Cecil G. Rice.
Do	Pressed Steel Car Co	S. F. McKee, S. J. Welch.
Do	Westinghouse Air Brake Co	R. O. Yearick.
SOUTH CAROLINA.		
Greenville	Victor-Monaghan Mills	L. P. Hollis.
TEXAS.		
Amarillo	A., T. & S. F. Ry. Apprentice School	E. W. Blinn.
Brownwood	do	K. L. Elliott.
Cleburne	do	S. D. Heyward.
Galveston	do	K. L. Elliott.
Silsbee	do	Do.
Slaton	do	E. W. Blinn.
Temple	do	K. L. Elliott.

6. SCHOOLS OF HOROLOGY.

Location.	Institution.	Director.
CALIFORNIA.		
San Francisco	Hiles Watchmaking and Engraving School, 717 Market Street.	C. O. Hiles.
INDIANA.		
Attica	De Selms Watch School, 293 Perry Street	Omar C. De Selms.
ILLINOIS.		
Chicago	Chicago School of Watchmaking, 59 East Van Buren Street.	Thomas Sweazey.
Peoria	Bradley Polytechnic Institute, School of Horology.	A. T. Westlake.
MASSACHUSETTS.		
Waltham	Waltham Horological School	Eugene H. Swain.
MINNESOTA.		
St. Paul	Stone School of Watchmaking, 597 Wabasha Street.	Fred G. Ohm.
MISSOURI.		
Kansas City	Stuhl's Institute of Watchmaking, Jewelry Manufacturing, and Engraving, Altman Building.	A. C. Stuhl.
St. Louis	St. Louis Watchmaking School, 5815 Easton Avenue.	R. Jaegermann.
PENNSYLVANIA.		
Lancaster	Bowman Technical School, Duke and Chestnut Streets.	John J. Bowman.
Do	Lancaster School of Watchmaking, Commerce Building.	G. Edward Fleisher.
Philadelphia	Philadelphia College of Horology, Broad and Somerset Streets.	Arthur T. Johnson.
WISCONSIN.		
Milwaukee	Drexler School of Watchmaking, University Building.	John Drexler.
Do	Wisconsin Institute of Horology, Stroh Building.	F. A. Thomas.

[1] A school for salesmen is maintained at Pittsburgh; schools for apprentices at the New Castle, Duquesne, Homestead, Farrell, and Ohio works; and a school for engineering graduates at the Duquesne, Homestead, Ohio, and Edgar Thomson works.

XXV.—Superintendents of Schools for the Blind.

Location.	Name of institution.	Superintendent or principal.
Talladega, Ala.	Alabama School for the Blind	F. H. Manning
Do.	Alabama School for the Negro Deaf and Blind	Do.
Little Rock, Ark.	Arkansas School for the Blind	John H. Hinemon.
Do.	Arkansas School for the Blind (colored)	Jennie C. Jackson.
Berkeley, Cal.	California School for Deaf and Blind	L. E. Milligan.
San Francisco (1526 California St.), Cal	San Francisco Association for the Blind	Ruth Quinan Marks
Colorado Springs, Colo.	Colorado School for the Deaf and the Blind	W. K. Argo.
Hartford, Conn.	Connecticut Institute for the Blind	Gordon Hicks.
Do.	Connecticut Institute for the Blind (dept. of trades)	Charles B. Fisher.
St. Augustine, Fla.	Florida School for the Deaf and the Blind	A. H. Walker.
Do.	Florida School for the Deaf and the Blind (colored)	Do.
Macon, Ga.	Georgia Academy for the Blind	G. F. Oliphant
Do.	Georgia Academy for the Blind (colored)	Do.
Gooding, Idaho	Idaho State School for the Deaf and the Blind	W. E. Taylor.
Chicago, Ill.	Chicago Public Schools for the Blind	John B. Curtis.
Jacksonville, Ill.	Illinois School for the Blind	Robert W. Woolston.
Indianapolis, Ind.	Indiana School for the Blind	George S. Wilson.
Vinton, Iowa	Iowa College for the Blind	George D. Eaton.
Kansas City, Kans.	Kansas State School for the Blind	Lee Harrison.
Louisville, Ky.	Kentucky School for the Blind	Susan B. Merwin.
Do.	Kentucky School for the Blind (colored)	Do.
Baton Rouge, La.	Louisiana State School for the Blind	W. W. Bynum.
Portland, Me.	Maine Institution for the Blind	Millard W. Baldwin.
Overlea, Md.	Maryland School for the Blind	John F. Bledsoe.
Do.	Maryland School for the Colored Blind and Deaf	Do.
Watertown, Mass.	Perkins Institution and Massachusetts School for the Blind.	Edward E. Allen.
Detroit, Mich.	Detroit Public Schools for Blind	Mildred Fletcher.
Lansing, Mich.	Michigan School for the Blind	C. E. Holmes.
Saginaw, Mich.	Michigan Employment Institution for the Blind	Frank G. Putnam.
Faribault, Minn.	Minnesota School for the Blind	James J. Dow.
Jackson, Miss.	Mississippi Institute for the Blind	R. S. Curry.
St Louis, Mo.	Missouri School for the Blind	S. M. Green.
Boulder, Mont.	Montana School for the Deaf and the Blind	H. J. Menzemer.
Nebraska City, Nebr.	Nebraska School for the Blind	N. C. Abbott.
Jersey City, N. J.	Public School Classes for Blind	W. F. Babcock.
Newark, N. J.	do	Janet G. Paterson.
Summit, N J	International Sunshine Society, Department for the Blind (Arthur Home).	Belle Harvey.
Alamogordo, N. Mex.	New Mexico Institute for the Blind	R. R. Pratt.
Batavia, N. Y.	New York State School for the Blind	C. A. Hamilton.
Brooklyn (84th St. and 13th Ave.), N. Y.	International Sunshine Society, Department for the Blind.	Maybelle Peck.
New York (University Ave.), N. Y.	Catholic Institute for the Blind	Sister M. Bertrand.
New York, N. Y.	New York Institute for the Education of the Blind	Edward M. Van Cleve.
Do.	Public School Classes for Blind Children	Frances E. Moscrip.
Prince Bay, N. Y.	St. Joseph's Blind Asylum	Sister M. Augustine.
Raleigh, N. C.	State School for the Blind and the Deaf	John T. Alderman.
Do.	State School for the Blind and the Deaf (colored)	A. W. Pegues.
Bathgate, N. Dak.	North Dakota School for the Blind	B. P. Chapple.
Cincinnati, Ohio	Cincinnati School for the Blind	Estella Lawes.
Cleveland, Ohio	Cleveland Public School for the Blind	R. B. Irwin.
Columbus, Ohio	Ohio State School for the Blind	Charles F. F. Campbell.
Toledo, Ohio	Toledo School for the Blind	R. B. Irwin.
Muskogee, Okla.	Oklahoma School for the Blind	O. W. Stewart.
Taft, Okla.	Institute for Deaf, Blind, and Orphans (colored)	J. R. Johnson.
Salem, Oreg.	Oregon State School for the Blind	E. T. Moores.
Overbrook, Pa.	Pennsylvania Institution for the Instruction of the Blind.	Olin H. Burritt.
Pittsburgh, Pa.	Western Pennsylvania Institution for the Blind	Thos. S. McAloney.
Cedar Springs, S. C.	South Carolina School for the Deaf and the Blind	N. F. Walker.
Do.	South Carolina School for the Deaf and the Blind (colored).	Do.
Gary, S. Dak.	South Dakota School for the Blind	Otis O. Rule.
Nashville, Tenn.	Tennessee School for the Blind	I. S. Wampler.
Do.	Tennessee School for the Blind (colored)	Do.
Austin, Tex.	Deaf, Dumb, and Blind Institute for Colored Youths.	R. E. L. Holland.
Do.	Texas School for the Blind	E. E. Bramlette.
Ogden, Utah	Utah School for the Blind	Frank M. Driggs.
Newport News, Va.	Virginia State School for Colored Deaf and Blind Children.	William C. Ritter.
Staunton, Va.	Virginia School for the Deaf and the Blind	W. A. Bowles.
Vancouver, Wash.	Washington State School for the Blind	Sadie E. Hall.
Romney, W. Va.	West Virginia Schools for the Deaf and the Blind	F. L. Burdett.
Janesville, Wis.	Wisconsin School for the Blind	J. T. Hooper.
Milwaukee, Wis.	Day School for the Blind	Carrie B. Levy.
Racine, Wis.	do	Lydia E. Dunkelow.

XXVI.—Superintendents of Schools for the Deaf.

1. STATE SCHOOLS.

Location.	Name of institution.	Superintendent or principal.
Talladega, Ala.	Alabama School for the Deaf	F. H. Manning.
Do.	Alabama School for the Negro Deaf and Blind	Do.
Tucson, Ariz.	Arizona State School for the Deaf	Howard Griffin.
Little Rock, Ark.	Arkansas Deaf-Mute Institute	Thomas P. Clarke.
Do.	Arkansas Deaf-Mute Institute (colored)	A. M. Martin.
Berkeley, Cal.	California School for Deaf and Blind	L. F. Milligan.
Colorado Springs, Colo.	Colorado School for the Deaf and the Blind	W. K. Argo.
Hartford, Conn.	American School, at Hartford, for the Deaf	Frank R. Wheeler.
Mystic, Conn.	Mystic Oral School for the Deaf	Clara H. McGuigan.
Washington, D. C.	Columbia Institution for the Deaf	Percival Hall.
Do.	Gallaudet College for the Deaf [1]	Do.
Do.	Kendall School for the Deaf [1]	Lyman Steed.
St. Augustine, Fla.	Florida School for the Deaf and the Blind	A. H. Walker.
Do.	Florida School for the Deaf and the Blind (colored)	Do.
Cave Spring, Ga.	Georgia School for the Deaf	J. C. Harris.
Do.	Georgia School for the Deaf (colored)	F. M. Gordon.
Gooding, Idaho.	Idaho State School for the Deaf and the Blind	W. E. Taylor.
Jacksonville, Ill.	Illinois School for the Deaf	H. T. White.
Indianapolis, Ind.	Indiana State School for the Deaf	R. O. Johnson.
Council Bluffs, Iowa	Iowa School for the Deaf	Henry W. Rothert.
Olathe, Kans.	Kansas School for the Deaf	Kate S. Herman.
Danville, Ky.	Kentucky School for the Deaf	Augustus Rogers.
Do.	Kentucky School for the Deaf (colored)	Do.
Baton Rouge, La.	Louisiana State School for the Deaf	G. C. Huckaby.
Portland, Me.	Maine School for the Deaf	Elizabeth R. Taylor.
Frederick, Md.	Maryland State School for the Deaf	Ignatius Bjorlee.
Overlea, Md.	Maryland School for the Colored Blind and Deaf	John F. Bledsoe.
Beverly, Mass.	New England Industrial School for Deaf Mutes	Ella S. Warner.
Northampton, Mass.	Clarke School for the Deaf [2]	Caroline A. Yale.
Randolph, Mass.	Boston School for the Deaf	M. J. Splaine.
Flint, Mich.	Michigan School for the Deaf	Luther L. Wright.
Faribault, Minn.	Minnesota School for the Deaf	James N. Tate.
Jackson, Miss.	Institution for the Deaf and Dumb	Wert Scott.
Do.	Institution for the Deaf and Dumb (colored)	Do.
Fulton, Mo.	Missouri School for the Deaf	J. Stuart Morrison.
Do.	Missouri School for the Deaf (colored)	W. C. Reid.
Boulder, Mont.	Montana School for the Deaf and the Blind	H. J. Menzemer.
Omaha, Nebr.	Nebraska School for the Deaf	Frank W. Booth.
Trenton, N. J.	New Jersey School for the Deaf	Alvin E. Pope.
Santa Fe, N. Mex.	New Mexico Asylum for the Deaf and Dumb	W. O. Connor, jr.
Albany, N. Y.	Albany Home School for the Oral Instruction of the Deaf.	Quincy McGuire.
Buffalo, N. Y.	Le Couteulx St. Mary's Institution for the Improved Instruction of the Deaf. [2]	Sister Mary Anne Burke.
Malone, N. Y.	Northern New York Institution for Deaf Mutes	Edward C. Rider.
New York (904 Lexington Ave.), N. Y.	Association for the Improved Instruction of Deaf Mutes. [2]	Harris Taylor.
New York (40–44 W. 115th St.), N. Y.	New York Evening School for the Deaf	Albert J. Amatean.
New York (Fort Washington Ave. and W. 163d St.), N. Y.	New York Institution for the Instruction of the Deaf and Dumb.	Isaac B. Gardner.
Rochester, N. Y.	Western New York Institution for Deaf Mutes	T. C. Forrester.
Rome, N. Y.	Central New York Institution for Deaf Mutes	E. A. Gruver.
Westchester, N. Y.	St. Joseph's Institute for the Improved Instruction of Deaf Mutes. [2]	Annie M. Larkin.
Morganton, N. C.	North Carolina School for the Deaf	E. McKay Goodwin.
Raleigh, N. C.	State School for the Blind and the Deaf (colored)	A. W. Pegues.
Devils Lake, N. Dak.	North Dakota School for the Deaf	Frank Read, jr.
Columbus, Ohio.	Ohio State School for the Deaf	J. W. Jones.
Sulphur, Okla.	Oklahoma School for the Deaf	J. W. Blattner.
Taft, Okla.	Institute for Deaf, Blind, and Orphans (colored)	J. R. Johnson.
Salem, Oreg.	Oregon School for Deaf	E. S. Tillinghast.
Philadelphia (Belmont and Monument Aves.), Pa.	Home for the Training in Speech of Deaf Children Before They Are of School Age.	Mary S. Garrett.
Philadelphia (Mount Airy), Pa.	Pennsylvania Institution for the Deaf and Dumb.	A. L. E. Crouter.
Pittsburgh (Brookline), Pa.	De Paul Institute for Deaf Mutes [2]	Sister Mary James.
Scranton, Pa.	Pennsylvania Oral School for the Deaf	Kate H. Fish.
Swissvale (Edgewood Park), Pa.	Western Pennsylvania Institution for the Instruction of the Deaf and Dumb.	Wm. N. Burt.
Providence, R. I.	Rhode Island Institute for the Deaf	Anna C. Hurd.
Cedar Spring, S. C.	South Carolina School for the Deaf and the Blind	N. F. Walker.
Do.	South Carolina School for the Deaf and the Blind (colored).	Do.

[1] Department of Columbia Institution for the Deaf.
[2] School is under private management but receives State pupils.

XXVI.—Superintendents of Schools for the Deaf—Continued.

1. STATE SCHOOLS—Continued.

Location.	Name of institution.	Superintendent or principal.
Sioux Falls, S. Dak.	South Dakota School for the Deaf	Howard W. Simpson.
Knoxville, Tenn.	Tennessee Deaf and Dumb School	H. E. Walker.
Do.	Tennessee Deaf and Dumb School (colored)	Do.
Austin, Tex.	Deaf, Dumb, and Blind Institute for Colored Youths.	R. E. L. Holland.
Do.	Texas School for the Deaf	G. F. Urbantke.
Ogden, Utah.	Utah School for the Deaf	Frank M. Driggs.
Brattleboro, Vt.	Austine Institution for the Deaf and Blind	Helen G. Throckmorton.
Newport News, Va.	Virginia State School for Colored Deaf and Blind Children.	Wm. C. Ritter.
Staunton, Va.	Virginia School for the Deaf and the Blind	W. A. Bowles.
Vancouver, Wash.	State School for the Deaf	W. M. Kilpatrick.
Romney, W. Va.	West Virginia Schools for the Deaf and the Blind	F. L. Burdett.
Delavan, Wis.	Wisconsin State School for the Deaf	H. C. Buell.

2. PRIVATE SCHOOLS.

Oakland, Cal.	St. Joseph's Home for Deaf Mutes	Sister M. Louis.
Macon, Ga.	Miss Arbaugh's School for Deaf Children	Laura L. Arbaugh.
Chicago (40th St. and Belmont Ave.), Ill.	Ephpheta School for the Deaf	Ada Potts.
Chinchuba, La.	Chinchuba Deaf-Mute Institute	Sister M. Alma.
Baltimore (Irvington), Md.	St. Francis Xavier's School for the Deaf	Sister M. Michael.
Kensington, Md.	Home School for Little Deaf Children	Anna C. Reinhardt.
West Medford, Mass.	Sarah Fuller Home for Little Deaf Children	Mary Islay Strachan.
North Detroit, Mich.	Evangelical Lutheran Deaf-Mute Institute	Rev. Wm. Gielow.
Joplin, Mo.	Joplin School for Deaf	Delia C. Page.
St. Louis (Vandeventer Ave. and Westminster Place), Mo.	Central Institute for the Deaf	Ethel M. Hilliard.
St. Louis (901 N. Garrison Ave.), Mo.	St. Joseph Deaf-Mute Institute	Sister M. Borgia.
Tamworth, N. H.	Davidson School of Individual Instruction	S. G. Davidson.
New York (534 W. 187th St.), N. Y.	Reno Margulies School for the Deaf	Mrs. A. Reno Margulies.
New York (1 Mount Morris Park W.), N. Y.	Wright Oral School	John Dutton Wright, M. A.
Lockland, Ohio.	St. Rita School for the Deaf	Rev. H. J. Waldhaus.
Lansdowne, Pa.	Sanatorium School for Nervous, Lame, or Deaf	Claudia M. Redd.
Philadelphia (1803 Vine St.), Pa.	Archbishop Ryan Memorial Institute for the Deaf.	Sister M. Carmelia.
San Juan, Porto Rico.	School for the Deaf and Dumb	Sister M. Isabel.
Lead, S. Dak.	Black Hills School for the Deaf	Miss F. L. Willhoyte.
St. Francis, Wis.	St. John's Institute for Deaf-Mutes	Rev. M. M. Gerend.

XXVII.—Superintendents of Schools for the Feeble-Minded.

1. STATE SCHOOLS.

Location.	Name of institution.	Superintendent or principal.
Eldridge, Cal.	Sonoma State Home	F. O. Butler, M. D.
Ridge, Colo.	State Home and Training School for Mental Defectives.	A. P. Busey, M. D.
Mansfield, Conn.	Mansfield State Training School and Hospital	Chas. T. La Moure, M. D.
Nampa, Idaho.	Idaho State Sanitarium	D. O. Poynter, M. D.
Lincoln, Ill.	Lincoln State School and Colony	Thos. H. Leonard, M. D.
Fort Wayne, Ind.	Indiana School for Feeble-Minded Youth	George S. Bliss, M. D.
Glenwood, Iowa.	Iowa Institution for Feeble-Minded Children	Geo. Mogridge, M. D.
Parsons, Kans.	State Hospital for Epileptics	Miss M. Edwards.
Winfield, Kans.	State Home for Feeble-Minded	F. C. Cave, M. D.
Frankfort, Ky.	Kentucky Institution for Feeble-Minded Children	S. L. Helm, M. D.
West Pownal, Me.	Maine School for Feeble-Minded	Carl J. Hedin, M. D.
Owings Mills, Md.	Rosewood State Training School for Feeble-Minded	Frank W. Keating, M. D
Baldwinsville, Mass.	Hospital Cottages for Children[1]	Harold C. Arey.
Waverley, Mass.	Massachusetts School for the Feeble-Minded	Walter E. Fernald, M. D.
Wrentham, Mass.	Wrentham State School	Geo. L. Wallace, M. D.
Lapeer, Mich.	Michigan Home and Training School	H. A. Haynes, M. D.
Faribault, Minn.	Minnesota School for Feeble-Minded and Colony for Epileptics.	G. C. Hanna.
Marshall, Mo.	Missouri Colony for Feeble-Minded and Epileptic.	R. P. C. Wilson, M. D.

[1] Receives epileptic children as well as other classes needing hospital treatment and care.

XXVII.—Superintendents of Schools for the Feeble-Minded—Continued.

1. STATE SCHOOLS—Continued.

Location.	Name of institution.	Superintendent or principal.
Boulder, Mont	Montana Training School for Backward Children	H. J. Menzemer, M. A.
Beatrice, Nebr	Nebraska Institution for Feeble-Minded Youth	D. G. Griffiths, M. D.
Laconia, N. H	New Hampshire School for Feeble-Minded	Benjamin W. Baker, M. D.
New Lisbon, N. J	New Jersey State Colony for Feeble-minded	J. F. Macomber.
Skillman, N. J	New Jersey State Village for Epileptics	David F. Weeks, M.D.
Vineland, N. J	New Jersey State Institution for Feeble-Minded	Madeleine A. Hallowell, M. D.
Do	Training School at Vineland, N. J	E. R. Johnstone.
Newark, N. Y	New York State Custodial Asylum	Ethan A. Nevin, M. D.
New York (Randalls Island), N. Y.	New York City Children's Hospitals and Schools	Wm. B. Cornell, M. D.
Rome, N. Y	Rome State Custodial Asylum	Charles Bernstein, M. D.
Sonyea, N. Y	Craig Colony for Epileptics	Maude O. Weller.
Syracuse, N. Y	Syracuse State Institution for Feeble-Minded Children.	O. H. Cobb, M. D.
Thiells, N. Y	Letchworth Village	Charles S. Little, M. D.
Kinston, N. C	Caswell Training School	C. Banks McNairy, M. D
Grafton, N. Dak	Institution for Feeble-Minded	A. R. S. Wylie, M. D.
Columbus, Ohio	do	E. J. Emerick, M. D.
Enid, Okla	do	Wm. L. Kendall, M. D.
Salem, Oreg	State Institution for Feeble-Minded	J. N. Smith, M. D.
Elwyn, Pa	Pennsylvania Training School for Feeble-Minded Children.	Martin W. Barr, M. D.
Pennhurst, Pa	Eastern Pennsylvania State Institution for Feeble-Minded and Epileptic.	Oscar E. Thomson.
Polk, Pa	State Institution for Feeble-Minded of Western Pennsylvania.	J. M. Murdoch, M. D.
Slocum, R. I	Exeter School	Joseph H. Ladd, M. D.
Redfield, S. Dak	State School and Home for Feeble-Minded	J. K. Kutnewsky.
Austin, Tex	State Colony for the Feeble-Minded	J. W. Bradfield.
Provo, Utah	State Mental Hospital: Department for Feeble-Minded.	G. E. Hyde, M. D.
Brandon, Vt	Vermont State School for Feeble-Minded Children	F. J. Russell, M. D.
Madison Heights, Va	Virginia Epileptic Colony	A. S. Priddy, M. D.
Medical Lake, Wash	State Institution for Feeble-Minded	S. C. Woodruff.
Chippewa Falls, Wis	Wisconsin Home for Feeble-Minded	Alfred W. Wilmarth, M. D.
Lander, Wyo	Wyoming School for Defectives	Charles E. Lane, M. D.

2. PRIVATE SCHOOLS.

Godfrey, Ill	"Beverly Farm" Home and School for Nervous and Backward Children.	Wm. H. C. Smith, M. D.
Streator, Ill	Cottage School for Retarded Children	Frances R. Fletcher.
Wheaton, Ill	Highland Heath	Mary E. Pogue, M. D.
Red Oak, Iowa	Powell School for Backward and Mentally Deficient Children.	Velura E. Powell, M. D.
Farmdale, Ky	Stewart Home and School	John P. Stewart, M. D.
Catonsville, Md	Mount Herbert Private School for Feeble-Minded	Samuel J. Fort, M. D.
Amherst, Mass	Home School for Backward Children and Youth	Frances J. Herrick.
Barre, Mass	"Elm Hill" Private Home and School for Feeble-Minded.	George A. Brown, M. D. George P. Brown, M. D.
Boston (80 Hammond St.), Mass.	Residence School for Special Children	Elizabeth L. Moulton.
Halifax, Mass	Standish Manor School	Ellen C. Dresser.
Detroit, Mich	Reed School for Nervous and Backward Children	Mrs. Frank A. Reed.
Kalamazoo (Comstock P. O.), Mich.	St. Anthony's School for Feeble-Minded and Backward Children.	Sister M. Vincent.
Kalamazoo, Mich	Wilbur Home and School for Backward and Mentally Defective Children.	Joseph W. Wilbur.
Northfield, Minn	Baker School	Laura B. Baker.
St. Louis (3809 Flad Ave.), Mo.	Miss Compton's School for Children of Retarded Mentality.	Fanny A. Compton.
Cranbury, N. J	"The Larches" Educational Sanitarium for Mental Defectives.	Elise Gordon.
Haddonfield, N. J	Bancroft Training School	E. A. Farrington, M. D.
Orange, N. J	Seguin School for Children Who Deviate from the Normal.	Elsie M. Seguin.
South Orange, N. J	School for Individual Teaching	Charlotte H. Miner.
Amityville, N. Y	Brunswick Home for Idiotic, Epileptic, Paralytic, and Feeble-Minded Children.	C. L. Markham, M. D.
Binghamton, N. Y	Binghamton Training School	A. A. Boldt.
Camillus, N. Y	Hill Crest School	A. Cora Harmon.
Newburgh, N. Y	Sycamore Farm Home School	N. R. Brewster.

XXVII.—Superintendents of Schools for the Feeble-Minded—Continued.

2. PRIVATE SCHOOLS—Continued.

Location.	Name of institution.	Superintendent or principal.
New York (238th St. and Riverdale Ave.), N. Y.	Florence Nightingale School for Nervous and Backward Children.	Rudolph S. Fried.
Pittsford, N. Y.	Frances School	Mabel A. Taylor.
Port Jefferson, N. Y.	Brooklyn Home for Blind, Crippled, and Defective Children.	Harriett C. Neafie. Sister Teresa.
Saratoga Springs, N. Y.	Miss Copeland's School for Mentally Deficient Children.	Susan E. Copeland.
Walden, N. Y.	Goodale Manor School	Mary P. Williams.
White Plains, N. Y.	St. Agnes Hospital	Sister M. Francis.
Marietta, Ohio	Riverview School	Mary Merydith.
Berwyn (The Maples), Pa.	Latshaw School	Allen Latshaw.
Lansdowne, Pa.	Brookwood School for Nervous and Backward Children.	Rachel W. Brewster.
Philadelphia (Holmesburg), Pa.	Biddle School for Nervous and Backward Children.	Grace Biddle de Quelin
Philadelphia (3412 Sansom St.), Pa.	Latshaw School	Allen Latshaw.
Roslyn, Pa.	Miss Woods' School for Exceptional Children	Mollie A. Woods.
Sharon Hill, Pa.	Miss McGrew's School for Boys of Defective Mentality.	Anna L. McGrew.
Murfreesboro, Tenn.	Bristol-Nelson Physiological School for Nervous and Backward Children.	Cora Bristol-Nelson.
Austin, Tex.	Texas Training School for Defectives and Sanitarium for Mental and Nervous Diseases.	T. O. Maxwell, M. D.
Falls Church, Va.	Gundry Home and Training School for Feeble-Minded and Epileptics.	Mattie Gundry.
Richmond, Va.	Home Place School	Alice C. Hinckley.
Jefferson, Wis.	St. Coletta Institute	Sister M. Emerentia.
Watertown, Wis.	Evangelical Lutheran Home for Feeble-Minded and Epileptics.	H. C. Zaus.

XXVIII.—Summer School Directors.

PART 1.—UNIVERSITIES, COLLEGES, AND NORMAL SCHOOLS.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
ALABAMA.				
Auburn	Alabama Polytechnic Institute	Zebulon Judd	June 3	July 12
Birmingham	Howard College	John C. Dawson	...do	Do.
Daphne	State Normal School	H. H. Holmes	June 4	July 17
Florence	...do	H. J. Willingham	May 28	Aug. 9
Jacksonville	...do	C. W. Daugette	May 27	Aug. 10
Livingston	...do	George W. Brock	June 3	Aug. 16
Montgomery	State Colored Normal School	J. W. Beverly	...do	July 12
Normal	Agricultural and Mechanical College for Negroes.	Walter S. Buchanan	June 10	July 19
Troy	State Normal School	Edward M. Shackelford	May 28	Aug. 9
Tuskegee	Tuskegee Institute	Ezra C. Roberts	June 10	July 19
University	University of Alabama	James J. Doster	June 6	July 17
ARIZONA.				
Flagstaff	Northern Arizona Normal School	R. H. H. Blome	June 17	Aug. 9
ARKANSAS.				
Conway	Arkansas State Normal School	B. W. Torreyson	June 3	July 26
Fayetteville	University of Arkansas	James R. Jewell	June 17	July 27
CALIFORNIA.				
Arcata	Humboldt State Normal School	N. B. Van Matre	June 24	Aug. 23
Berkeley	University of California	Walter M. Hart	...do	Aug. 3
Huntington Lake	Sierra Summer School (Fresno State Normal School).	W. B. Givens	July 1	Aug. 9
Los Angeles	University of California (Southern Division).	Monroe E. Deutsch	June 24	Aug. 3
Do.	University of Southern California	Thomas B. Stowell	...do	Do.

XXVIII.—Summer School Directors—Continued.

PART 1.—UNIVERSITIES, COLLEGES, AND NORMAL SCHOOLS—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
CALIFORNIA—con.				
Pacific Grove	Hopkins Marine Station (Leland Stanford Junior University).	Walter K. Fisher	June 18	Aug. 30
San Diego	State Normal School	Edward L. Hardy	July 1	Aug. 9
Santa Barbara	State Normal School of Manual Arts and Home Economics.	Mary H. Tracy	June 24	Aug. 30
Stanford University.	Leland Stanford Junior University	Ray L. Wilbur	June 18	Aug. 31
Swanton	Camp California Summer School of Surveying (University of California).	Francis S. Foote, jr	May 16	June 15
COLORADO.				
Boulder	University of Colorado	Milo G. Derham	June 24	Aug. 3
Denver	Denver Normal and Preparatory School.	M. F. Miller	June 10	Do.
Do	Graduate courses in Ophthalmology (University of Colorado).	Edward Jackson	June 24	Do.
Fort Collins	Colorado Agricultural College	S. Arthur Johnson	June 3	July 12
Greeley	Colorado State Teachers College	John G. Crabbe	June 17	Aug. 23
Gunnison	Colorado State Normal School	James H. Kelley	...do	July 26
Tolland	School of Mountain Field Biology (University of Colorado).	Francis Ramaley	June 24	Aug. 3
University Park	University of Denver	Wilber D. Engle	June 17	Aug. 23
Woodland Park	Summer School of Surveying (Colorado College).	Frank M. Okey	May 15	June 15
CONNECTICUT.				
Danbury	State Normal School	J. R. Perkins	July 9	Aug. 17
New Haven	New Haven Normal School of Gymnastics.	E. H. Arnold	July 29	Aug. 31
DELAWARE.				
Newark	Delaware College	George S. Counts	July 8	Aug. 16
DISTRICT OF COLUMBIA.				
Washington	Catholic Sisters College	Thomas E. Shields	June 28	Aug. 7
Do	George Washington University	William C. Ruediger	June 22	Aug. 3
Do	National University Law School	Charles F. Carusi	June 17	Aug. 14
FLORIDA.				
Gainesville	University of Florida	A. A. Murphree	June 17	Aug. 9
Madison	Florida Normal Institute	W. B. Cate	June 11	Aug. 24
Tallahassee	Florida State College for Women	N. M. Salley	June 17	Aug. 9
GEORGIA.				
Athens	University of Georgia	Howard W. Odum	July 1	Aug. 3
Atlanta	Georgia School of Technology	A. B. Morton	July 22	Sept. 14
Macon	Mercer University	R. L. Pulliam	June 15	Aug. 24
Milledgeville	Georgia Normal and Industrial College.	M. M. Parks	June 1	June 29
Oxford	Emory College	Nolan A. Goodyear	June 18	Aug. 14
Valdosta	South Georgia State Normal College	R. H. Powell	June 6	June 30
IDAHO.				
Albion	State Normal School	G. A. Axline	June 4	Aug. 2
Lewiston	...do	Oliver M. Elliott	...do	Do.
ILLINOIS.				
Carbondale	Southern Illinois State Normal University.	H. W. Shryock	June 24	Aug. 1
Charleston	Eastern Illinois State Normal School	L. C. Lord	June 10	July 19
Chicago	American College of Physical Education.	Clarence Rainwater	July 1	Aug. 10
Do	Armour Institute of Technology	H. M. Raymond	June 3	July 12
Do	Chicago Normal School	William B. Owen	July 1	Aug. 2
Do	Chicago Normal School of Physical Education.	Wilhelmina C. McEachern.	...do	Aug. 10
Do	De Paul University	Martin V. Moore	June 26	Aug. 2
Do	Lewis Institute	George N. Carman	July 1	Aug. 23
Do	Loyola University	Edward Morgan	June 18	Oct. 1
Do	University of Chicago	Harry Pratt Judson	June 17	Aug. 30

XXVIII.—Summer School Directors—Continued.

PART 1.—UNIVERSITIES, COLLEGES, AND NORMAL SCHOOLS—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
ILLINOIS—contd.				
De Kalb	Northern Illinois State Normal School.	John W. Cook	June 24	Aug. 2
Evanston	Garrett Biblical Institute	Charles M. Stuart	June 17	Aug. 30
Do	Northwestern University	Clarence S. Marsh	July 1	Aug. 10
Macomb	Western Illinois State Normal School.	W. P. Morgan	June 10	July 19
Normal	Illinois State Normal University	David Felmley	...do	Aug. 28
Peoria	Bradley Polytechnic Institute	Albert F. Siepert	June 19	July 26
Urbana	University of Illinois	K. C. Babcock	June 17	Aug. 9
Wheaton	Wheaton College	W. F. Rice	...do	July 26
INDIANA.				
Bloomington	Indiana University	Will D. Howe	June 13	Aug. 9
Danville	Central Normal College	Jonathan Rigdon	May 21	Aug. 8
Goshen	Goshen College	Daniel S. Gerig	June 10	Aug. 23
Greencastle	De Pauw University	Harry B. Gough	June 5	Aug. 21
Hanover	Hanover College	W. A. Millis	June 10	Aug. 29
Indianapolis	Butler College	Thomas C. Howe	June 17	July 27
Do	Indiana Central University	I. J. Good	May 27	Aug 17
Do	Normal College of the North American Gymnastic Union.	Emil Rath	July 1	July 2
Do	Teachers College of Indianapolis	Eliza A. Blaker	May 21	Sept. —
Do	Vocational education courses (Indiana University).	E. A. Lee	June 17	July 12
Marion	Marion Normal Institute	Stewart P. Hatton	June 3	Aug. 23
Muncie	Indiana State Normal School	B. F. Moore	June 17	Aug. 30
Notre Dame	St. Mary's College	Mother M. Pauline	July 1	Aug. 7
Oakland City	Oakland City College	W. P. Dearing	June 10	Aug. 30
Terre Haute	Indiana State Normal School	Wm. W. Parsons	June 17	Do.
Valparaiso	Valparaiso University	Henry B. Brown	May 28	Aug. 15
Winona Lake	Indiana University Biological Station.	Carl H. Eigenmann	June 15	Aug. 16
Do	Winona College	Charles Manchester	July 8	Aug. 15
IOWA.				
Ames	Iowa State College of Agriculture and Mechanic Arts.	G. M. Wilson	June 3	Aug. 22
Cedar Falls	Iowa State Teachers College	Homer H. Seerley	June 7	Aug. 23
Cedar Rapids	Coe College	W. S. Newell	June 10	Aug. 17
Denison	Iowa State Teachers College Extension	A. C. Fuller, jr	June 7	Aug. 23
Des Moines	Des Moines-Highland Park College	Arthur E. Bennett	May 21	Aug. 10
Do	Drake University	W. F. Barr	June 10	Aug. 17
Dubuque	Dubuque College	George W. Heitkamp	June 24	Aug. 31
Fayette	Upper Iowa University	Chauncey P. Colegrove	June 10	Aug. 17
Indianola	Simpson College	James W. Campbell	...do	Do.
Iowa City	State University of Iowa	Charles H. Weller	June 17	Aug. 24
Iowa Falls	Ellsworth College	Ido Franklin Meyer	June 10	Aug. 17
Milford	Macbride Lakeside Laboratory (State University of Iowa).	B. Shimek	June 17	July 27
Mount Pleasant	Iowa Wesleyan College	H. E. Jacques	May 13	July 15
Mount Vernon	Cornell College	George H. Betts	June 10	Aug. 17
Oskaloosa	Penn College	S. M. Hadley	June 3	Aug. 10
Red Oak	Iowa State Teachers College Extension	Leslie I. Reed	June 7	Aug. 23
Sioux City	Morningside College	E. A. Brown	June 10	Aug. 30
Spencer	Iowa State Teachers College Extension	Hugh S. Buffum	June 7	Aug. 23
KANSAS.				
Baldwin City	Baker University	Lilian Scott	May 16	June 27
Emporia	Kansas State Normal School	Norman Triplett	May 29	July 26
Hays	Fort Hays Kansas Normal School	W. A. Lewis	May 28	Do.
Lawrence	University of Kansas	Frederick J. Kelly	June 4	Aug. 9
Manhattan	Kansas State Agricultural College	Edwin L. Holton	May 31	Aug. 2
Pittsburg	State Manual Training Normal School.	W. A. Brandenburg	May 27	July 17
Topeka	Washburn College	Parley P. Womer	May 24	July 3
Wichita	Fairmount College	Arthur J. Hoare	June 10	July 19
Do	Friends University	Grace E. Maclean	June 4	July 12
KENTUCKY.				
Bowling Green	Western Kentucky State Normal School.	H. H. Cherry	June 17	July 26
Lexington	University of Kentucky	James T. C. Noe	...do	July 28
Richmond	Eastern Kentucky State Normal School.	Thomas J. Coates	...do	July 26

XXVIII.—Summer School Directors—Continued.

PART 1.—UNIVERSITIES, COLLEGES, AND NORMAL SCHOOLS—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
LOUISIANA.				
Baton Rouge	Louisiana State University	Delmar T. Powers	June 6	Aug. 7
Natchitoches	Louisiana State Normal School	V. L. Roy	May 29	July 3
New Orleans	Tulane University of Louisiana	A. B. Dinwiddie	June 10	July 20
Do	College of Medicine	Isadore Dyer	...do....	Do.
MAINE.				
Castine	Eastern State Normal School	Albert F. Richardson	July 15	Aug. 2
Farmington	State Normal School	W. G. Mallett	June 24	July 12
Fort Kent	.....do.....	Mary P. Nowland	...do.....	Do.
Gorham	.....do.....	W. E. Russell	...do.....	Do.
Machias	.....do.....	Wm. L. Powers	...do.....	Do.
Presque Isle	.....do.....	San Lorenzo Merriman	July 15	Aug. 23
Technology	Surveying camp of Massachusetts Institute of Technology.	Charles M. Spofford	July 30	Sept. 16
MARYLAND.				
Baltimore	Johns Hopkins University	Edward F. Buchner	July 9	Aug. 16
MASSACHUSETTS.				
Amherst	Massachusetts Agricultural College	Andrew S. Thomson	July 1	July 30
Boston	Boston University	Alexander H. Rice	July 8	Aug. 17
Do	Harvard Graduate School of Medicine	Horace D. Arnold	June 1	Sept. 30
Do	Posse Normal School of Gymnastics	Hartvig Nissen	June 26	Aug. 3
Do	Simmons College	Henry Lefavour	July 8	Aug. 16
Cambridge	Harvard University	K. G. T. Webster	July 1	Aug. 10
Do	Massachusetts Institute of Technology	Richard C. Maclaurin	June 10	Sept. 20
Fitchburg	State Normal School	John G. Thompson	July 8	Aug. 24
Hyannis	.....do.....	W. A. Baldwin	July 9	Aug. 9
Newton Center	Newton Theological Institution	W. N. Donovan	June 11	June 21
Woods Hole	Marine Biological Laboratory	Frank R. Lillie	July 3	Aug. 13
MICHIGAN.				
Ann Arbor	University of Michigan	Edward H. Kraus	July 1	Aug. 23
	Law School	.....do.....	June 24	Aug. 31
	Medical school	.....do.....	July 1	Aug. 9
Battle Creek	Normal School of Physical Education	Frank J. Born	July 8	Aug. 16
East Lansing	Michigan Agricultural College	Edward H. Ryder	June 24	Aug. 2
Kalamazoo	Western State Normal School	Dwight B. Waldo	...do.....	Do.
Marquette	Northern State Normal School	James H. B. Kaye	...do.....	Do.
Mount Pleasant	Central State Normal School	E. C. Warriner	...do.....	Do.
Topinabee	University of Michigan Biological Station.	George R. La Rue	July 1	Aug. 23
Ypsilanti	Michigan State Normal College	Charles McKenny	June 24	Aug. 2
MINNESOTA.				
Duluth	State Normal School	E. W. Bohannon	June 17	July 26
Mankato	.....do.....	Charles H. Cooper	...do.....	Do.
Minneapolis	University of Minnesota	Lotus D. Coffman	June 24	Aug. 2
Moorhead	State Normal School	Frank A. Weld	June 17	July 26
St. Cloud	.....do.....	J. C. Brown	...do.....	Do.
St. Paul	State Teachers' Training School	A. V. Storm	...do.....	Do.
Do	University of Minnesota College of Agriculture.	Roscoe W. Thatcher	...do.....	Do.
Winona	College of St. Teresa	Mary A. Molloy	June 28	Aug. 8
Do	State Normal School	G. E. Maxwell	June 17	July 26
MISSISSIPPI.				
Agricultural College.	Mississippi A. and M. College	Joseph C. Robert	June 11	July 20
Hattiesburg	Mississippi Normal College	Joe Cook	May 20	June 21
Meridian	Meridian College	A. S. McClendon	June 10	July 13
MISSOURI.				
Cameron	Missouri Wesleyan College	Emily S. Dexter	June 3	July 26
Cape Girardeau	State Normal School	W. S. Dearmont	...do.....	Aug. 9
Columbia	University of Missouri	Charles H. Williams	June 6	Aug. 1
Kirksville	State Normal School	John R. Kirk	May 29	Aug. 7
Marshall	Missouri Valley College	Albert McGinnis	June 3	Aug. 10
Maryville	State Normal School	Ira Richardson	May 27	Aug. 2
Rolla	State School of Mines	A. L. McRae	...do.....	July 6

XXVIII.—Summer School Directors—Continued.

PART 1.—UNIVERSITIES, COLLEGES, AND NORMAL SCHOOLS—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
MISSOURI—contd.				
St. Louis	Forest Park College; School of Music	Anna S. Cairns	June 1	Sept. 1
Do	Harris Teachers College	E. George Payne	June 17	July 20
Do	St. Louis University Medical School	D. M. Schoemaker	May 27	July 6
Springfield	State Normal School	W. T. Carrington	...do	Aug. 3
Warrensburg	...do	E. L. Hendricks	...do	Do.
Warrenton	Central Wesleyan College	H. Vosholl	...do	Do.
MONTANA.				
Bozeman	Montana State College of Agriculture and Mechanic Arts.	John H. Holst	June 17	July 27
Dillon	State Normal College	Joseph E. Monroe	June 4	Aug. 23
Missoula	University of Montana	Jesse P. Rowe	June 17	Aug. 30
Polson	University of Montana Biological Station.	M. J. Elrod	June 18	July 31
NEBRASKA.				
Chadron	State Normal School	Robert I. Elliott	June 3	July 26
Collegeview	Union College	Harvey A. Morrison	June 11	Aug. 5
Fremont	Fremont College	W. H. Clemmons	...do	Aug. 16
Hastings	Hastings College	R. B. Crone	...do	Aug. 2
Kearney	State Normal School	George S. Dick	June 3	July 26
Lincoln	University of Nebraska	W. G. Hastings	May 27	Aug. 16
Omaha	Creighton University	William P. Whelan	June 19	Aug. 2
Do	University of Omaha	Paul R. Stevenson	June 17	Aug. 9
Peru	State Normal School	D. W. Hayes	June 3	July 26
University Place	Nebraska Wesleyan University	Bertram E. McProud	May 28	July 19
Wayne	State Normal School	U. S. Conn	June 3	July 26
York	York College	C. E. Ashcraft	...do	Do.
NEVADA.				
Reno	University of Nevada	George F. James	June 17	July 26
NEW HAMPSHIRE.				
Hanover	Dartmouth College	James L. McConaughy	July 9	Aug. 16
Keene	Joint session, State Normal Schools of Plymouth and Keene.	Wallace E. Mason	...do	Do.
NEW JERSEY.				
Hoboken	Stevens Institute of Technology	Alex. C. Humphreys	Aug. 12	Sept 7
Newark	Newark Normal School for Physical Education and Hygiene.	Randall D. Warden	July 8	Aug. 16
New Brunswick	Rutgers College	Charles H. Elliott	July 1	Aug. 9
NEW MEXICO.				
East Las Vegas	New Mexico Normal University	F. H. H. Roberts	June 4	July 25
Silver City	New Mexico State Normal School	E. L. Enloe	June 3	July 26
NEW YORK.				
Alfred	Alfred University	Paul F. Titsworth	July 9	Aug. 21
Auburn	Auburn Theological Seminary	George B. Stewart	July 8	July 27
	Summer School for Christian Workers.	...do	July 29	Aug. 10
Brooklyn	Adelphi College	A. G. Fradenburgh	July 8	Aug 16
Geneseo	State Normal School	James V. Sturges	...do	Aug. 17
Ithaca	Cornell University	George P. Bristol	...do	Aug. 16
New Rochelle	College of New Rochelle	M. M. Xavier	July 5	Aug. 9
New York	College of the City of New York	Paul Klapper	July 1	Aug. 23
Do	Columbia University	James C. Egbert	July 8	Aug. 16
Do	Hunter College	Raymond B. Earle	July 1	Aug. 10
Do	New York University	James E. Lough	...do	Aug. 9
Oneonta	State Normal School	Percy I. Bugbee	July 8	Aug. 16
Syracuse	Syracuse University	E. Ellwood Smith	...do	Do.
Troy	Rensselaer Polytechnic Institute	Palmer C. Ricketts	June 14	Aug. 14
NORTH CAROLINA.				
Chapel Hill	University of North Carolina	N. W. Walker	June 11	July 25
Cullowhee	Cullowhee Normal and Industrial School.	A. C. Reynolds	June 12	Do.
Elizabeth City	State Colored Normal and Industrial School.	P. W. Moore	July 1	Do.

XXVIII.—Summer School Directors—Continued.

PART 1.—UNIVERSITIES, COLLEGES, AND NORMAL SCHOOLS—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
NORTH CAROLINA—continued.				
Greensboro	State Normal and Industrial College	Walter C. Jackson	May 31	July 26
Greenville	East Carolina Teachers Training School.	C. W. Wilson	June 11	Aug. 3
Wake Forest	Wake Forest College	Wm. L. Poteat	June 4	Aug. 23
West Raleigh	North Carolina State College of Agriculture and Engineering.	W. A. Withers	June 11	July 25
NORTH DAKOTA.				
Ellendale	State Normal and Industrial School	R. M. Black	June 23	Aug. 1
Jamestown	Jamestown College	Wm. B. Thomas	June 25	Aug. 7
Mayville	State Normal School	Thos. A. Hillyer	July 1	Do
Minot	....do	William F. Clarke	June 26	Aug. 6
University	University of North Dakota	A. J. Ladd	June 24	Aug. 2
Valley City	State Normal School	George A. McFarland	June 26	Aug. 6
OHIO.				
Ada	Ohio Northern University	John Davison	May 28	Aug. 16
Akron	Municipal University of Akron, College of Engineering.	Fred E. Ayer	June 3	Aug. 17
Alliance	Mount Union College	J. B. Bowman	June 24	Aug. 2
Ashland	Ashland College	Wm. D. Furry	May 6	July 26
Athens	Ohio University	Alston Ellis	June 22	Aug. 2
	Continuation summer school	John J. Richeson	Aug. 5	Sept. 7
Berea	Baldwin-Wallace College	F. D. Ward	June 17	July 27
Bluffton	Bluffton College	N. E. Byers	June 3	Aug. 23
Bowling Green	State Normal College [1]	H. B. Williams	Apr. 29	Aug. 24
Cleveland	Case School of Applied Science	C. S. Howe	June 24	Aug. 2
Columbus	Ohio State University	M. Blakemore Evans	...do	Aug. 16
Defiance	Defiance College [2]	Albert G. Caris	May 6	Sept. 6
Kent	State Normal College [2]	J. E. McGilvrey	Apr. 29	Aug. 30
New Concord	Muskingum College [2]	Howard McDonald	...do	Do.
Oberlin	Oberlin College	Edward A. Miller	June 21	Aug. 8
Oxford	Miami University [2]	H. C. Minnich	Apr. 29	Aug. 30
Put in Bay	Lake Laboratory (Ohio State University).	Herbert Osborn	June 24	Aug. 3
Rio Grande	Rio Grande College	W. G. Scarberry	...do	Aug. 2
Springfield	Wittenberg College	T. Bruce Birch	...do	Do.
Toledo	Toledo University	Frank V. Quillin	July 1	Aug. 12
Westerville	Otterbein University	W. G. Clippinger	June 17	July 26
Wilberforce	Wilberforce University (colored)	Gilbert H. Jones	June 24	Aug. 3
Wilmington	Wilmington College	J. Edwin Jay	June 18	Aug. 9
OKLAHOMA.				
Ada	East Central State Normal School	J. M. Gordon	May 24	July 20
Alva	Northwestern State Normal School	A. S. Faulkner	...do	Do.
Durant	Southeastern State Normal School	T. D. Brooks	...do	Do.
Edmond	Central State Normal School	J. W. Graves	May 23	July 19
Norman	University of Oklahoma	W. W. Phelan	June 1	July 31
Stillwater	Oklahoma Agricultural and Mechanical College.	J. H. Bowers	June 3	Aug. 2
Tahlequah	Northeastern State Normal School	G. W. Gable	May 27	July 19
Weatherford	Southwestern State Normal School	J. B. Eskridge	May 24	July 20
OREGON.				
Corvallis	Oregon Agricultural College	E. D. Ressler	June 10	July 20
Eugene	University of Oregon	Joseph Schafer	June 24	Aug. 2
Monmouth	Oregon Normal School	J. H. Ackerman	...do	July 2
Portland	Reed College	Everett C. Beach	...do	Sept. 5
Do	University of Oregon Extension	George Rebec	...do	Aug. 2
PENNSYLVANIA.				
Allentown	Muhlenberg College	Isaac M. Wright	June 29	Aug. 9
Beaver Falls	Geneva College	R. H. Martin	June 10	Aug. 3
Collegeville	Ursinus College	W. A. Kline	June 24	Aug. 2
Grove City	Grove City College	Weir C. Kettler	June 21	Do.
Millersville	State Normal School	P. M. Harbold	June 24	Do.
Philadelphia	Dropsie College	Cyrus Adler	July 9	Aug. 23
Do	Temple University	James H. Dunham	July 8	Aug. 17
Pittsburgh	University of Pittsburgh	J. C. Fettermann	July 1	Aug. 24

[1] Summer term includes 3 sessions. [2] Summer school includes 3 terms of 6 weeks each.

XXVIII.—Summer School Directors—Continued.

PART 1.—UNIVERSITIES, COLLEGES, AND NORMAL SCHOOLS—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
PENNSYLVANIA—continued.				
Selinsgrove	Susquehanna University	Herbert A. Allison	June 24	Aug. 2
South Bethlehem	Lehigh University	Percy Hughes	July 1	Aug. 24
Shippensburg	Cumberland Valley State Normal School.	J. S. Heiges	...do...	Aug. 9
State College	Pennsylvania State College	Edwin R. Smith	...do...	Do.
West Chester	State Normal School	Addison L. Jones	June 24	Aug. 2
SOUTH CAROLINA.				
Orangeburg	Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.	B. F. Cox	June 24	July 19
Rock Hill	Winthrop Normal and Industrial College.	David B. Johnson	June 18	July 26
SOUTH DAKOTA.				
Aberdeen	Northern Normal and Industrial School.	Willis E. Johnson	June 3	Aug. 23
Brookings	South Dakota State College of Agriculture and Mechanic Arts.	E. D. Stivers	June 10	July 13
Huron	Huron College	C. W. Hochstetler	May 20	June 21
Madison	State Normal School	F. A. Buechel	June 3	Aug. 23
Mitchell	Dakota Wesleyan University	Herbert Patterson	June 10	July 19
Spearfish	State Normal School	F. L. Cook	June 11	Do.
Springfield	...do...	G. G. Wenzlaff	May 27	Aug. 3
Vermillion	University of South Dakota	W. Franklin Jones	June 10	July 19
Yankton	Yankton College	M. A. Stewart	June 3	July 12
TENNESSEE.				
Harrogate	Lincoln Memorial University	B. A. Wise	May 13	Aug. 2
Johnson City	East Tennessee State Normal School	Sidney G. Gilbreath	June 11	July 20
Knoxville	Knoxville College (colored)	R. W. McGranahan	...do...	July 22
Do	University of Tennessee	Brown Ayres	June 18	July 26
Memphis	West Tennessee State Normal School	J. W. Brister	June 10	July 19
Murfreesboro	Middle Tennessee State Normal School.	R. L. Jones	...do...	Do.
Nashville	George Peabody College for Teachers	Bruce R. Payne	June 13	Aug. 23
Do	Tennessee Agricultural and Industrial State Normal School (colored).	W. J. Hale	...do...	July 19
TEXAS.				
Abilene	Simmons College	J. D. Sandefer	June 6	Aug. 22
Austin	University of Texas	W. S. Sutton	June 12	Aug. 31
Belton	Baylor College	W. M. W. Splawn	June 5	Aug. 10
Canyon	West Texas State Normal College	R. B. Cousins	June 10	Aug. 17
College Station	Agricultural and Mechanical College of Texas.	James O. Morgan	June 3	July 27
Commerce	East Texas State Normal College	R. B. Binnion	June 11	Aug. 22
Dallas	Southern Methodist University	John H. Keen	June 12	July 31
Denton	College of Industrial Arts	F. M. Bralley	June 4	Aug. 22
Do	North Texas State Normal College	W. H. Bruce	...do...	Aug. 10
Fort Worth	Southwestern Baptist Theological Seminary.	Lee R. Scarborough	June 3	July 12
Do	Texas Christian University	E. M. Waits	June 10	July 19
Georgetown	Southwestern University	R. W. Tinsley	June 17	Aug. 31
Huntsville	Sam Houston Normal Institute	H. F. Estill	June 7	Aug. 14
Prairie View	Prairie View State Normal (colored)	I. M. Terrell	June 5	Aug. 10
San Marcos	Southwest Texas State Normal School.	C. E. Evans	June 6	Aug. 13
Waco	Baylor University	S. P. Brooks	June 10	Aug. 23
Waxahachie	Trinity University	W. M. Liggett	...do...	July 20
UTAH.				
Logan	Agricultural College of Utah	J. H. Linford	June 10	Aug. 30
Salt Lake City	University of Utah	Milton Bennion	...do...	Do.
VERMONT.				
Burlington	University of Vermont and State Agricultural College.	J. F. Messenger	July 8	Aug. 16
Castleton	State Normal School	Charles A. Adams	July 1	July 28
Johnson	...do...	Bessie B. Goodrich	...do...	Do.
Middlebury	Middlebury College	Raymond McFarland	July 6	Aug. 16

XXVIII.—Summer School Directors—Continued.

PART 1.—UNIVERSITIES, COLLEGES, AND NORMAL SCHOOLS—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
VIRGINIA.				
Charlottesville	University of Virginia	Charles G. Maphis	June 17	July 27
Dublin	College of William and Mary	J. S. Wilson	...do	Aug. 10
East Radford	State Normal School	J. P. McConnell	...do	Aug. 30
Emory	Emory and Henry College	Fred Allison	June 13	July 25
Fredericksburg	State Normal School	E. H. Russell	June 17	July 24
Hampton	Hampton Normal and Agricultural Institute (colored).	George P. Phenix	June 19	July 17
Harrisonburg	State Normal School	William T. Sanger	June 17	Aug. 30
Petersburg	Virginia Normal and Industrial Institute (colored).	J. M. Gandy	...do	July 27
Richmond	Virginia Union University (colored)	George R. Hovey	...do	July 26
WASHINGTON.				
Bellingham	State Normal School	George W. Nash	June 3	Aug. 2
Centralia	Centralia Summer Normal (Ellensburg State Normal School).	Earl S. Wooster	...do	Do.
Cheney	State Normal School	J. E. Buchanan	...do	Do.
Ellensburg	...do	George H. Black	...do	Do.
Friday Harbor	Puget Sound Biological Station (University of Washington).	T. C. Frye	June 24	
Pullman	State College of Washington	A. A. Cleveland	June 3	July 13
Puyallup	Summer School of Agriculture (State College of Washington).	Frank O. Kreager	June 24	Aug. 2
Seattle	University of Washington	Frederick E. Bolton	June 18	Aug. 31
Tacoma	College of Puget Sound	O. Edgar Reynolds	...do	Aug. 17
WEST VIRGINIA.				
Athens	Concord State Normal School	Fred A. Forster	June 11	Aug. 3
Bethany	Bethany College	T. E. Cramblet	June 20	July 31
Buckhannon	West Virginia Wesleyan College	T. W. Haught	June 13	Aug. 8
Fairmont	State Normal School	Joseph Rosier	June 17	July 26
Glenville	...do	E. G. Rohrbaugh	June 6	July 31
Huntington	Marshall College	O. I. Woodley	June 17	July 26
Morgantown	West Virginia University	Waitman Barbe	...do	Aug. 17
Shepherdstown	Shepherd College State Normal School	A. D. Kenamond	...do	July 26
West Liberty	State Normal School	John C. Shaw	...do	Do.
WISCONSIN.				
Berlin	Green Lake County Training School	C. D. Lamberton	June 17	July 26
Eau Claire	State Normal School	C. J. Brewer	...do	Do.
La Crosse	...do	Fassett A. Cotton	...do	Do.
Madison	University of Wisconsin	S. H. Goodnight	June 24	Aug. 2
Menomonie	Stout Institute	R. H. Rodgers	July 29	Aug. 30
Milwaukee	Marquette University	J. A. Murphy	June 24	Aug. 2
Do	National German-American Teachers' Seminary.	Max Griebsch	July 1	Do.
Do	State Normal School	C. G. Pearse	June 24	July 27
Oshkosh	...do	H. A. Brown	...do	Aug. 2
Platteville	...do	A. M. Royce	June 17	July 26
River Falls	...do	J. H. Ames	June 10	July 19
Stevens Point	...do	J. F. Sims	June 24	Aug. 2
Superior	...do	V. E. McCaskill	June 17	July 26
Whitewater	...do	A. H. Yoder	...do	July 20
WYOMING.				
Laramie	University of Wyoming	J. E. Butterworth	June 17	July 26

PART 2.—SECONDARY SCHOOLS, INCLUDING INSTITUTIONS OF HIGHER RANK NOT APPEARING IN PART 1.

ALABAMA.				
Fairhope	Fairhope Summer School	Marietta L. Johnson	June 3	July 15
Huntsville	Oakwood Manual Training School (colored).	J. I. Beardsley	June 4	July 16
CALIFORNIA.				
Berkeley	California School of Arts and Crafts	F. H. Meyer	June 24	Aug. 3
Los Angeles	Krotona Institute of Theosophy	Frederick F. Strong	July 29	Sept. 1
Do	Los Angeles School of Art and Design	L. E. G. Macleod	June 18	Sept. 14

XXVIII.—Summer School Directors—Continued.

PART 2.—SECONDARY SCHOOLS, INCLUDING INSTITUTIONS OF HIGHER RANK NOT APPEARING IN PART 1—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
CALIFORNIA—con.				
Riverside	Riverside Library Service School	Joseph F. Daniels	June 24	Aug. 16
San Francisco	California School of Fine Arts	Lee F. Randolph	...do	Aug. 3
San Jose	Washburn School	Mary Meyrick	July 8	Aug. 16
CONNECTICUT.				
East Canaan	Clarence H. White School of Photography.	Clarence H. White	July 8	Aug. 17
New Haven	University School	George L. Fox	July 24	Sept. 20
Norwalk	Harström School	Carl A. Harström	Aug. 1	Sept. 16
Simsbury	Simsbury Summer Tutoring School	Walter L. Ferris	July 22	Sept. 22
Stamford	Thorpe School			
DELAWARE.				
Dover	State College for Colored Students	A. R. Spaid	June 10	July 13
DISTRICT OF COLUMBIA.				
Washington	Emerson Institute	W. H. Randolph, A. McD. Crawford	June 17	Sept. 20
FLORIDA.				
Tallahassee	Florida A. and M. College for Negroes	Nathan B. Young	June 17	Aug. 9
GEORGIA.				
Mount Berry	Berry School	C. B. Collier	May 1	Aug. 27
IDAHO.				
Pocatello	Idaho Technical Institute	Miles F. Reed	June 3	July 12
Rexburg	Ricks Normal College	George S. Romney	June 4	Aug. 30
ILLINOIS.				
Chicago	American Conservatory of Music	J. J. Hattstaedt	June 24	July 27
Chicago (330 Webster Ave.)	Applied Arts Summer School	Florence H. Fitch	July 1	July 20
Chicago	Art Institute of Chicago	George W. Eggers	June 24	Sept. 13
Do	Chicago Academy of Fine Arts	Carl N. Werntz	...do	Aug. 31
Do	Chicago Kindergarten Institute	Mary B. Page	July 1	July 27
Do	Chicago Musical College	Felix Borowski	June 24	Aug. 3
Do	Chicago School of Applied and Normal Art.	Emma M. Church	July 29	Aug. 24
Do	Chicago School of Civics and Philanthropy.	Graham Taylor	June 19	July 26
Do	Chicago School of Industrial Art	Hugo B. Froehlich	July 1	Aug. 2
Do	Columbia Normal School of Physical Education.	Mary A. Blood	...do	Aug. 11
Do	Columbia School of Music	Clare Osborne Reed	June 24	July 27
Do	Cosmopolitan School of Music and Dramatic Art.	William C. Williams	...do	Do.
Do	Gregg Summer Normal	Henry J. Holm	July 1	Aug. 9
Do	National Institute of Secretaries	Oliver McEwan	July 8	Aug. 23
Do	National Kindergarten College	Elizabeth Harrison	June 17	Aug. 9
Do	Pestalozzi - Froebel Kindergarten Training School.	Bertha H. Hegner	July 1	Aug. 6
Do	Sherwood Music School	Walter Keller	July 8	Aug. 19
Evanston	American Institute of Normal Methods	Edward B. Birge	July 1	July 19
Lake Forest	National Summer School of Music	Ada M. Fleming	June 29	July 27
INDIANA.				
Culver	Culver Military Academy	H. G. Glascock	July 3	Aug. 28
Indianapolis	John Herron Art Institute	Harold H. Brown	June 10	Aug. 31
North Manchester	Manchester College	Otho Winger	May 27	Aug. 17
St Mary-of-the-Woods	St Mary-of-the-Woods College	Sister Basil	July 1	Aug. 3

[1] All normal courses close Aug. 2.

XXVIII.—Summer School Directors—Continued.

PART 2.—SECONDARY SCHOOLS, INCLUDING INSTITUTIONS OF HIGHER RANK NOT APPEARING IN PART 1—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
IOWA.				
Cedar Rapids	Palmer Method Summer School	W. C. Henning	June 17	July 26
Cherokee	Mount St. Mary Normal Training School.	Mother Gertrude	July 1	Aug. 6
Iowa Falls	Edgewood School of Domestic Arts	Eva Simplot	June 11	July 23
Ottumwa	St. Joseph's Academy	Sister Mary Geraldine	June 10	Aug. 16
LOUISIANA.				
Baton Rouge	Southern University and A. and M. College (colored).	J. S. Clark	June 10	July 20
La Fayette	Southwestern Louisiana Industrial Institute.	E. L. Stephens	June 3	Aug. 3
Ruston	Louisiana Industrial Institute	J. E. Keeny	May 28	July 24
Shreveport	Centenary College	Hugh J. Smith	June 10	Aug. 9
MAINE.				
Boothbay-Harbor	Commonwealth School of Art and Industry.	Asa G. Randall	July 1	Sept. 6
Ogunquit	Summer School of Modeling	V. D. Brenner	July 10	Aug. 20
MARYLAND.				
Baltimore	Peabody Conservatory of Music	Harold Randolph	July 8	Aug. 17
Princess Anne	Princess Anne Academy	T. H. Kiah	June 26	Aug. 1
MASSACHUSETTS.				
Andover	Phillips Academy Military Camp	Alfred E. Stearns	July 3	Aug. 14
Auburndale	American Institute of Normal Methods	Osborne McConathy	July 10	July 31
Boston	Emerson College of Oratory	Walter B. Tripp	July 6	Aug. 2
Boston (30 Huntington Ave.).	Farmer's (Miss) School of Cookery	Alice Bradley	July 1	July 26
Boston (306 Pierce Bldg.).	School of Expression (5 terms)	S. S. Curry	May 13	Aug. 30
Bourne	Old Colony Union Industrial School	M. Maud Myhre	June 27	Oct. 15
Monterey	Berkshire Summer School of Art	Raymond P. Ensign Ernest W. Watson	July 8	Aug. 16
Northampton	Institute of Music Pedagogy	R. L. Baldwin	...do...	July 20
Oak Bluffs	Treat School	Edwin B. Treat	...do...	Oct. 1
Provincetown	Cape Cod School of Art	Charles W. Hawthorne	July 1	Sept. 1
Do	Summer School of Drawing and Painting.	E. Ambrose Webster	June 1	Oct. 1
Woburn	Warren Academy Free Industrial School.	Frank Carter	July 1	Aug. 9
Worcester	Boys' Trade School	Albert J. Jameson	July 8	Aug. 16
Do	Girls' Trade School	Helen R. Hildreth	...do...	Do.
MICHIGAN.				
Berrien Springs	Emmanuel Missionary College	Frederick Griggs	July 1	Aug. 12
Big Rapids	Ferris Institute	W. N. Ferris	May 20	Aug. 9
Detroit	Detroit Conservatory of Music	Frances L. York	June 24	July 27
Do	Detroit Technical Institute	B. D. Edwards	...do...	Aug. 19
Grand Rapids	Grand Rapids Kindergarten Training School.	Clara Wheeler	July 2	Aug. 12
Saugatuck	Summer School of Painting	Frederick F. Fursman	June 28	Aug. 18
MINNESOTA.				
Crookston	North West School of Agriculture	J. H. Hay	June 17	July 26
Minneapolis	Minneapolis School of Art	Mary M. Cheney	...do...	Do.
Do	Minneapolis School of Music, Oratory, and Dramatic Art.	William H. Pontius Charles M. Holt	...do...	Aug. 9
Do	Minnesota College	Frank Nelson	May 27	July 13
Morris	West Central School of Agriculture	C. H. Barnes	June 17	July 26
MISSOURI.				
La Grange	La Grange College	D. J. Scott	June 3	Aug. 10
NEW HAMPSHIRE.				
South Chatham	Hill's (Mrs.) Summer School of Cookery.	Janet M. Hill	July 3	Aug. 1

XXVIII.—Summer School Directors—Continued.

PART 2.—SECONDARY SCHOOLS, INCLUDING INSTITUTIONS OF HIGHER RANK NOT APPEARING IN PART 1—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
NEW JERSEY.				
Princeton	Princeton Summer School	C. R. Morey	July 22	Sept. 13
Do	University Summer School	Garret S. Voorhees	...do...	Sept. 14
NEW YORK.				
Albany	New York State Library School	James I. Wyer, jr	June 26	July 17
Brooklyn	Brooklyn Botanic Garden	Ellen Eddy Shaw	July 9	Aug. 13
Cliff Haven	Catholic Summer School of America	John J. Donlan	July 1	Sept. 6
Cold Spring Harbor.	Brooklyn Institute of Arts and Sciences, Biological Laboratory.	Charles B. Davenport	July 3	Aug. 13
Monroe	Mackenzie School	J. C. Mackenzie	July 9	Sept. 1
New York (109 E. 14th St.).	American Progressive Piano School	Gustav L. Becker	June 10	July 31
New York (215 W. 57th St.).	Art Students' League of New York	George B. Bridgman	June 3	Sept. 21
New York (541 Lexington Ave.)	Bible Teachers' Training School	John A. Wood	June 19	July 30
New York (7 W. 42d St.).	Chalif Normal School of Dancing	Louis H. Chalif	June 3	July 26
New York (109th St. and Amsterdam Ave.).	National Academy of Design	George W. Maynard	June 1	Aug. 31
New York (72 Park Ave.).	New York Preparatory School	E. E. Camerer	June 24	Sept. 6
New York	New York School of Fine and Applied Art.	Frank A. Parsons	July 6	Aug. 17
Do	New York School of Philanthropy	Porter R. Lee	July 8	Aug. 16
New York (30 Irving Pl.)	Palmer Method Summer School	S. E. Barton	July 1	July 26
Rochester	Rochester Business Institute Summer Normal.	S. C. Williams and J. F. Forbes.	...do...	July 31
Saint Josephs	Saint-Augustine-by-the-Lake Summer School.	Mother Polycarpa	...do...	Aug. 31
Saratoga Springs	Skidmore School of Arts	Sarah G. Ross	...do...	Aug. 9
Shady	"Blue Dome Frat" Summer School of Figure Painting.	Dewing Woodward	June 1	Oct. 1
Woodstock	Art Students' League of New York	Charles Rosen	June 15	Oct. 15
NORTH CAROLINA.				
Asheville	Southern Term of the School of Expression of Boston, Mass.	Anna B. Curry	June 29	Aug. 9
Boone	Appalachian Training School	B. B. Dougherty	June 13	July 26
Brevard	Brevard Institute	L. B. Haynes	June 11	July 21
Greensboro	Negro Agricultural and Technical College.	F. C. Johnson	June 24	Aug. 3
OHIO.				
Cincinnati	Art Academy of Cincinnati	J. H. Gest	June 17	Aug. 24
Do	Ohio Mechanics' Institute	John T. Faig	June 24	Aug. 2
Columbus	Capitol College of Oratory and Music	Frank S. Fox	June 12	Aug. 9
Do	State Summer Library School	J. Howard Dice	July 1	Aug. 10
Oberlin	Oberlin Business College Normal School.	J. T. Henderson	June 17	Do.
Willoughby	Andrews Institute for Girls	S. D. Shankland	...do...	July 21
OKLAHOMA.				
Enid	Phillips University	J. W. Tyler	June 3	July 27
OREGON.				
Portland	Gregg Summer School (Link's Business College).	A. T. Link	July 1	Aug. 30
PENNSYLVANIA.				
Chester Springs	Pennsylvania Academy of the Fine Arts.	D. Roy Miller	Mar. 29	Nov. 30
Fort Washington	Darby School of Painting	Hugh H. Breckenridge	June 3	July 20
Muncy	Lycoming County Normal	Sylvester B. Dunlap	June 24	Aug. 23
Philadelphia	Brown Preparatory School	Alonzo Brown	June 20	Aug. 29
Do	Neff College	Silas S. Neff	July 1	July 26
Do	Pennsylvania Museum School of Industrial Art.	O. F. Ege	July 8	Aug. 2

XXVIII.—Summer School Directors—Continued.

PART 2.—SECONDARY SCHOOLS, INCLUDING INSTITUTIONS OF HIGHER RANK NOT APPEARING IN PART 1—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
PENNSYLVANIA—continued.				
Pittsburgh (Mount Oliver).	Byron W. King's School of Oratory	Byron W. King	June 9	July 19
Swarthmore	Swarthmore Preparatory School	Walter C. Crouch	June 20	(1)
TENNESSEE.				
Cookeville	Tennessee Polytechnic Institute	Thomas A. Early	June 10	July 20
Quebeck	Webb Summer School	E. T. Price	May 31	Aug. 9
TEXAS.				
Clarendon	Clarendon College	L. E. Gribble	May 22	July 3
San Antonio	Our Lady of the Lake College	Mother M. Florence	July 1	July 31
Stephenville	John Tarleton College	R. F. Holloway	June 7	July 26
UTAH.				
Provo	Church Teachers College (Brigham Young University).	G. H. Brimhall	June 3	Aug. 23
VIRGINIA.				
Lawrenceville	St. Paul Normal and Industrial School (colored).	James S. Russell	June 26	July 24
WEST VIRGINIA.				
Salem	Salem College	C. B. Clark	June 3	July 26

PART 3.—SUMMER NORMAL TRAINING SCHOOLS.

Birmingham, Ala.	Birmingham Summer Tarining School.	C. B. Glenn	June 3	July 12
Do.	Birmingham Summer Training School (colored).			
Mobile, Ala.	Summer Training School for Teachers.	C. F. Vigor	June 3	July 12
Boulder, Colo.	Colorado Chautauqua Summer Schools	Charles C. Casey	July 8	Aug. 16
Boise, Idaho	State Summer School for Teachers	C. E. Rose	June 17	July 24
Franklinton, La.	Florida Parishes State Normal School.	W. J. Dunn	June 10	July 20
Shreveport, La.	Summer School for Teachers (colored).	R. P. Player	...do	Do.
Blue Mountain, Miss.	State Summer Normal	W. T. Lowrey	June 4	July 12
Clinton, Miss.	Clinton Summer Normal	J. W. Provine	June 11	July 13
Mound Bayou, Miss.	State Normal for Negroes	G. H. Armstrong	July 22	Aug. 23
Newton, Miss.	Newton Summer Normal	A. S. McClendon	June 10	July 13
Glendive, Mont.	Summer School for Teachers.	R. H. Brown	June 12	July 24
Havre, Mont.	...do	Laura G. Lovett	July 22	Aug. 31
Lewistown, Mont.	...do	F. L. Cummings	July 15	Aug. 24
Malta, Mont.	...do	Flora Sims	July 22	Aug. 30
Collingswood, N. J.	...do	T. D. Sensor	July 1	Aug. 9
Newton, N. J.	...do	...do	...do	Do.
Ocean City, N. J.	...do	...do	...do	Aug. 3
Cortland, N. Y.	Cortland Summer School	L. J. McEvoy	July 2	Aug. 9
Dickinson, N. Dak.	Summer School for Teachers	P. S. Berg	June 24	July 27
Oregon City, Oreg.	County Summer School for Teachers.	J. E. Calavan	July 29	Aug. 16
Portland, Oreg.	Summer School of Primary Methods	Ruby S. Brennan	June 24	July 5
Brush Valley, Pa.	Mechanicsburg Summer Normal	R. O. Lytle	May 6	June 28
Arlington, Tex.	State Summer Normal	R. T. Ellis	June 10	July 25
Athens, Tex.	...do	C. G. Masterson	June 2	Do.
Austin, Tex.	State Summer Normal (colored)	B. F. Lee	June 10	Do.
Beaumont, Tex.	State Summer Normal	H. F. Triplett	June 17	July 26
Do.	State Summer Normal (colored)	T. J. Carlton	June 3	Do.
Belton, Tex.	State Summer Normal	Peyton Jacob	June 10	July 25
Brenham, Tex.	...do	D. H. Fisher	June 17	Do.
Brownwood, Tex.	...do	V. L. Griffin	June 3	July 24
Brownsville, Tex.	...do	W. F. Jourdan	June 12	July 26

[1] Sessions of 6, 10, and 14 weeks' duration.

XXVIII.—Summer School Directors—Continued.

PART 3.—SUMMER NORMAL TRAINING SCHOOLS—Continued.

Location.	Summer school.	Director in 1918.	Session of 1918.	
			Opening.	Close.
Caldwell, Tex.	State Summer Normal (colored)	I. B. Bryant	June 17	July 25
Cisco, Tex.	State Summer Normal	L. H. Denman	June 10	July 20
Comanche, Tex.	do	J. B. Layne	June 3	July 25
Conroe, Tex.	State Summer Normal (colored)	A. M. Story	July 15	Aug. 22
Crockett, Tex.	do	A. W. Pryor	June 17	
El Paso, Tex.	State Summer Normal	R. R. Jones	June 3	
Fort Worth, Tex.	State Summer Normal (colored)	W. O. Bundy	do	July 26
Gonzales, Tex.	State Summer Normal	J. C. Cochran	do	July 25
Greenville, Tex.	do	J. A. Cagle	do	Do.
Hondo, Tex.	do	T. L. Williams	do	Do.
Houston, Tex.	do	A. F. English	do	Do.
Do.	State Summer Normal (colored)	W. L. Johnson	June 4	Aug. 22
Kaufman, Tex.	do	W. H. Burnett	June 17	
La Grange, Tex.	do	G. A. Randolph	June 10	July 25
McKinney, Tex.	State Summer Normal	J. H. Head	do	July 27
Do.	State Summer Normal (colored)	T. C. Martin	June 17	July 25
Marshall, Tex.	State Summer Normal	G. H. Carpenter	June 3	Do. 24
Do.	State Summer Normal (colored)	H. B. Pemberton	June 17	Aug. 1
Meridian, Tex.	State Summer Normal	C. C. Comer	June 3	July 25
Mt. Pleasant, Tex.	State Summer Normal (colored)	G. L. Nelson	July 8	Aug. 22
Paris, Tex.	State Summer Normal	C. W. Bolin	June 3	July 26
San Antonio, Tex.	do	Charles A. Arnold	June 12	July 25
Sherman, Tex.	do	J. C. Pyle	June 10	Do.
Tehuacana, Tex.	do	J. J. Bates	June 11	Aug. 22
Tyler, Tex.	State Summer Normal (colored)	W. H. Seals	June 16	July 25
Victoria, Tex.	do	C. H. McGruder	June 18	
Waco, Tex.	do	R. L. Clark	June 17	July 24
Waelder, Tex.	do	W. M. Lamkin	June 10	July 25
Weatherford, Tex.	State Summer Normal	H. F. Grindstaff	June 17	Aug. 22
Woodville, Tex.	do	P. I. Hunter	do	July 26
Big Stone Gap, Va.	Clinch Valley Summer School	J. A. Livesay	June 26	July 24
Christiansburg, Va.	Christiansburg Summer School (colored).	E. A. Long	do	Do.
Farmville, Va.	Farmville Summer School	J. L. Jarman	June 17	Do.
Galax, Va.	Galax Summer School	B. M. Cox	June 26	Do.
Louisa, Va.	Louisa Summer School (colored)	W. L. Ransome	do	Do.
Manassas, Va.	Manassas Summer School (colored)	F. D. Morton	do	Do.
Martinsville, Va.	Martinsville Summer School	T. H. Phelps	do	Do.
Norfolk, Va.	Norfolk Summer School	E. S. Brinkley	do	Do.
Do.	Norfolk Summer School (colored)	T. C. Erwin	do	Do.
Rocky Mount, Va.	Rocky Mount Summer School (colored).	W. F. Grasty	do	Do.
South Boston, Va.	South Boston Summer School (colored)	Frank Trigg	do	Do.
Seattle, Wash.	Northwest Summer Normal	Charles Fagan	June 17	July 26
Spokane, Wash.	Summer High and Normal School	Henry M. Hart	June 10	Do.

PART 4.—SUMMER SCHOOLS FOR TEACHERS OF EXCEPTIONAL CLASSES.

Faribault, Minn.	Courses in mental deficiency (Minnesota School for Feeble Minded).	Fred Kuhlman	June 24	Aug. 3
St. Louis, Mo.	Central Institute for the Deaf	Julia M. Connery	June 20	July 20
Vineland, N. J.	Summer school for teachers of backward and mentally deficient children (The Training School at Vineland).	E. R. Johnstone	July 15	Aug. 24
Rome, N. Y.	Summer Training School (Rome State Custodial Asylum).	Charles Bernstein	July 1	July 27

XXIX.—Directors of Museums.[1]

Location.	Name of museum or of institution controlling it.	Director.
ALABAMA.		
Auburn	Alabama Polytechnic Institute	Charles C. Thach, president.
Birmingham	Birmingham School Museum	J. H. Phillips, superintendent.
Mobile	Y. M. C. A. Library and Museum	Leila Annspaugh, librarian.
Montgomery	Alabama Department of Archives and History	Thomas M. Owen, director.
Talladega	Talladega College	J. P. Metcalf, president.
University	Alabama Museum of Natural History	Eugene Allen Smith, director
ALASKA.		
Juneau	Alaska Historical Library and Museum	Gov. J. F. A. Strong, official custodian.
Sitka	The Sheldon Jackson Museum	
ARIZONA.		
Tucson	University of Arizona Museum	Byron Cummings, curator.
ARKANSAS.		
Conway	Hendrix College, George H. Burr Museum of Natural History.	M. J. McHenry, director.
Fayetteville	University of Arkansas	A. H. Purdue, State geologist.
CALIFORNIA.		
Avalon, Santa Catalina Island.	Tuna Club	
Berkeley	University of California, Department of Botany	W. A. Setchell, in charge.
Do	University of California, Department of Geology and Mineralogy.	Andrew C. Lawson, in charge.
Do	University of California, Museum of Paleontology.	J. C. Merriam, in charge.
Do	University of California, Museum of Vertebrate Zoology.	Joseph Grinnell, director.
Claremont	Pomona College	W. A. Hilton, in charge.
Los Angeles	Museum of History, Science, and Art	Frank S. Daggett, director.
Do	Chamber of Commerce Exhibit	Frank Wiggins, superintendent.
Do	Southern California Academy of Sciences	Holdridge O. Collins, secretary.
Do	The Southwest Museum	Hector Alliot, curator.
Do	University of Southern California	Albert B. Ulrey, curator.
Oakland	Municipal Art Gallery	Robert B. Harshe, director.
Do	Oakland Public Museum	Robert B. Harshe, curator.
Do	Piedmont Art Gallery	Richard L. Partington, curator.
Do	Sage Library	Anna L. Sawyer, librarian.
Pacific Grove	Pacific Grove Museum Association	
Palo Alto	Leland Stanford Junior Museum	H. C. Peterson, director.
Do	Leland Stanford Junior University	E. C. Starke, curator.
Pasadena	Throop College of Technology	W. H. Clapp, in charge.
Sacramento	Crocker Art Gallery	W. F. Jackson, curator.
Santa Barbara	Museum of Comparative Oology	William Leon Dawson, director.
San Francisco	California Academy of Sciences	Barton W. Evermann, director.
Do	California State Mining Bureau	Fletcher Hamilton, curator.
Do	Memorial Museum (Golden Gate Park)	George Haviland Barron, curator.
Do	San Francisco Institute of Art	Nelson Laurvik, director.
Do	University of California, Anthropological Museum.	A. L. Kroeber, curator.
Santa Clara	Santa Clara University, Museum of Mineralogy and Paleontology.	Anthony Cichi, director.
COLORADO.		
Boulder	University of Colorado Museum	Junius Henderson, curator.
Colorado Springs	Colorado College Museum	Edward R. Warren, director.
Denver	Colorado Mineral Museum (State capitol)	T. R. Benahen, director.
Do	Colorado Museum of Natural History	J. D. Figgins, director.
Do	Colorado Scientific Society (Boston Block)	G. L. Cannon, curator.
Do	East Side High School Museum	Do.
Do	State Board of Horticulture	Mrs. Martha Shute, director.
Do	State Bureau of Mines	
Do	State Historical and Natural History Society	Jerome C. Smiley, curator.
Do	Colorado State Museum	Isaac A. Abbot, custodian.
Fort Collins	State Agriculture College	W. L. Burnet, curator.
Golden	Colorado School of Mines, Mineralogical Museum.	H. B. Patton, director.
Greeley	State Teachers College of Colorado	

[1] Compiled by Harold L. Madison, secretary American Association of Museums, Park Museum, Providence, R. I.

XXIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
CONNECTICUT.		
Hartford	Connecticut Historical Society	A. C. Bates, secretary and librarian.
Do	Theological Seminary	Charles S. Thayer, curator.
Do	Trinity College, Boardman Hall of Natural History.	Frederic W. Carpenter, director.
Do	Wadsworth Atheneum and Morgan Memorial	Frank Butler Gay, director.
Litchfield	Litchfield Historicla Society	Mrs. Emily N. Vanderpool, curator.
Meriden	Meriden Scientific Association	David Gibbs, president.
Middletown	Middlesex County Historical Society	A. R. Crittenden, curator.
Do	Wesleyan University	William North Rice, director.
New Britain	New Britain Institute	Anna G. Rockwell, librarian.
New Haven	New Haven Colony Historical Society	Frederick Bostwick, curator.
Do	Yale University, the Eaton Herbarium	Alexander W. Evans, curator.
Do	Yale University, Peabody Museum of Natural History.	Charles Schuchert, curator.
Do	Yale University, School of the Fine Arts	William S. Kendall, director.
Do	Yale University, Steiner Collection	
New London	New London Historical Society	Ernest E. Rogers, president.
Norwich	Norwich Free Academy, Slater Memorial Museum.	Helen Marshall, curator.
Storrs	Connecticut Agricultural College	G. H. Lamson, jr., curator.
Waterbury	Mattatuck Historical Society	Rev. Joseph Anderson, president.
DELAWARE.		
Newark	Delaware College	
Wilmington	Natural History Society of Delaware	Linda Palmer-Jones, secretary.
DISTRICT OF COLUMBIA.		
Washington	Army Medical Museum	Maj. R. W. Shufeldt, curator.
Do	Corcoran Gallery of Art	C. Powell Minnigerode, director.
Do	Georgetown University, the Coleman Museum	Francis A. Tondorf, curator.
Do	George Washington University Medical School	F. F. Russell, director.
Do	Library of Congress, Division of Prints	Richard A. Rice, acting chief.
Do	National Gallery of Art, Smithsonian Institution	William H. Holmes, curator.
Do	United States National Museum	Richard Rathbun, assistant secretary, in charge.
FLORIDA.		
De Land	John B. Stetson University, Monroe Health Museum.	John F. Baerecke, director.
Gainesville	University of Florida, Florida State Museum	T. Van Hyning, director.
St. Augustine	St. Augustine Institute of Science and Historical Society.	Dewitt Nebb, president.
GEORGIA.		
Atlanta	State Museum	S. W. McCallie, curator.
Macon	Mercer University	
Oxford	Emory University	H. H. Stone, curator.
Savannah	Telfair Academy of Arts and Sciences	William Harden, custodian.
HAWAII.		
Honolulu	Bernice Pauahi Bishop Museum	William T. Brigham, director.
ILLINOIS.		
Bloomington	Illinois Wesleyan University, Powell Museum	
Do	McLean County Historical Society	Milo Custer, custodian.
Carlinville	Blackburn College, Taylor Museum	
Chicago	Art Institute of Chicago	George W. Eggers, director.
Do	Chicago Academy of Sciences	Frank M. Woodruff, curator.
Do	Chicago Historical Society	Caroline M. McIlvaine, curator.
Do	Field Museum of Natural History	Frederick J. V. Skiff, director.
Do	University of Chicago, Educational Museum	Elliot R. Downing, director.
Do	University of Chicago, Haskell Oriental Museum	James Henry Breasted, director.
Do	University of Chicago, Walker Museum	T. C. Chamberlain, director.
Decatur	James Milliken University, Biological Museum	
De Kalb	Museum of History, State Normal School	Ed. C. Page, in charge.
Elgin	Elgin Scientific Society	

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
ILLINOIS—continued.		
Evanston	Evanston Historical Society	J. Seymour Currey, president.
Do	Northwestern University-Garrett Biblical Institute, Bennett Museum of Christian Archæology.	Charles M. Stuart, curator.
Do	Northwestern University College of Liberal Arts	U. S. Grant, curator.
Do	Swedish Historical Society of America	
Galesburg	Knox College, Hurd Museum	B. H. Grave, curator.
Joliet	Joliet Township High School	Stanley Brown, superintendent.
Lake Forest	Lake Forest College Museum	W. C. Allee, curator.
Naperville	Northwestern College	L. M. Umbach, curator.
Rock Island	Augustana College Museum	Marcus Skarstedt.
Springfield	Illinois State Historical Library and Society	
Do	State Museum of National History	A. R. Crook, chief.
Sterling	Whiteside County Historical Society	W. W. Davis, secretary.
Urbana	University of Illinois, Museum of Natural History.	Frank C. Baker, curator.
Do	University of Illinois, Museum of Classical Archæology.	A. S. Pease, curator.
Do	University of Illinois, Museum of European Culture.	N. C. Brooks, curator.
INDIANA.		
Bloomington	Indiana University Museum of Fine Arts	Alfred M. Brooks, curator.
Centerville	Wayne County Historical Society	Caleb King, curator.
Crawfordsville	Wabash College, Hovey Museum	Mason D. Thomas, curator.
Crown Point	Old Settlers and Historical Association of Lake County.	
Farlham	Farlham College, Joseph Moore Museum	
Franklin	Franklin College	J. W. Adams, director.
Goshen	Elkhart County Historical Society	A. E. Weaver, custodian.
Hanover	Hanover College	
Indianapolis	Art Association of Indianapolis, John Herron Art Institute.	Harold Haven Brown, director.
Do	Indiana State Museum	W. S. Blatchley, curator.
Do	University of Indianapolis-Butler College	H. L. Bruner, director.
Marion	Grant County Historical Society, Octogenarian Museum.	R. L. Whitson, director.
Newcastle	Henry County Historical Society	
Noblesville	Hamilton County Historical Association	H. A. Maker, secretary-treasurer.
Notre Dame	Notre Dame University	
Richmond	Earlham College, The Joseph Moore Museum	Allen David Hole, curator.
South Bend	Northern Indiana Historical Society	George A. Baker, secretary.
Terre Haute	Emeline Fairbanks Memorial Library	Mrs. Sallie C. Hughes, librarian.
Upland	Taylor University, Walker Museum	
IOWA.		
Cedar Falls	Iowa State Teachers' College	Melvin F. Arey, curator.
Cedar Rapids	Coe College Museum	B. H. Bailey, curator.
Do	Iowa Masonic Library and Museum	N. R. Parvin, librarian.
Davenport	Davenport Academy of Sciences	E. K. Putnam, acting director.
Des Moines	Historical Department of Iowa	Edgar R. Harlan, curator.
Dubuque	Carnegie-Stout Free Public Library	Almira R. Wilcox, librarian.
Do	Herrmann Museum of Natural History	Richard Herrmann, director.
Fayette	Upper Iowa University	Guy West Wilson, curator.
Grinnell	Parker Museum of Natural History	H. W. Norris, curator.
Independence	Free Public Library	S. W. Geiser, director.
Iowa City	Museum of Art and Archæology	C. H. Weller, director.
Do	Ranney Library and Museum	Jane E. Roberts.
Do	State University of Iowa, Zoological Museum	C. C. Nutting, curator.
Madrid	Madrid Historical Society	
Waverly	Wartburg Teachers Seminary	
KANSAS.		
Atchison	Midland College	D. W. Crouse, director.
Baldwin	Baker University	C. S. Parmenter, chief curator.
Emporia	College of Emporia	D. C. Schaffner, director.
Do	Kansas State Normal School	W. H. Keller, curator.
Lawrence	University of Kansas	Frank Strong, director.
Lindsborg	Bethany College	E. O. Deere, curator.
Manhattan	Kansas State Agricultural College, Natural History Museum.	Robert K. Nahoms, curator.
Topeka	Kansas State Historical Society	George W. Martin, sectrtary.
Do	Washburn College	Ira D. Cardiff, director.
Salina	Kansas Wesleyan University	A. W. Giles, director.

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
KENTUCKY.		
Bowling Green	Ogden College	
Frankfort	Kentucky State Historical Society	
Lexington	Kentucky Geological Survey	J. B. Hoenig, director.
Do	Transylvania College	Alfred Fairhurst, director.
Louisville	Louisville Free Public Library Museum	George T. Settle, librarian.
LOUISIANA.		
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.	
New Orleans	Isaac Delgado Museum of Art	C. W. Boyle, curator.
Do	Louisiana Historical Association (Memorial Hall)	J. W. Gaines, custodian.
Do	Louisiana State Museum	Robert Glenk, director.
Do	Newcomb Art School	Ellswotrh Woodward, director.
Do	Tulane University of Louisiana	George E. Beyer, curator.
MAINE.		
Augusta	Kennebec Historical Society	P. S. Mooney, secretary.
Do	Maine State Museum	Thomas A. James, curator.
Brunswick	Bowdoin College	Henry Johnson, curator.
Eliot	William Fogg Library	
Hinckley	Good Will Home Association	
Lewiston	Art Museum of Bates College	Marianna Woodhull, director.
North Bridgton	Bridgton Academy	
Orono	University of Maine, Museum of Natural History	Mintin A. Chrysler, curator.
Orrs Island	Orrs Island Library	Ellen M. Mountfort, librarian.
Paris	Hamlin Memorial Hall	
Portland	Maine Historical Society	Evelyn L. Gilmore, curator.
Do	Port and Society of Art, L. D. M. Sweat Memorial Art Museum.	John Calvin Stevens, managing director.
Do	Portland Society of Natural History	Arthur H. Norton, librarian.
Saco	York Institute	
Watervilie	Colby College	
MARYLAND.		
Annapolis	Maryland Geological Survey	William Bullock Clark, director.
Baltimore	Baltimore Museum of Art	Henry H. Wiegand, secretary.
Do	Goucher College	
Do	Johns Hopkins University, Museum of Oriental and Classical Archæology.	David M. Robinson, director.
Do	Maryland Academy of Sciences	Percy M. Reese, director.
Do	Maryland Institute for the Promotion of the Mechanic Arts.	C. Y. Turner, director.
Do	Peabody Institute	L. H. Dielman, executive secretary.
Do	Walters Gallery	Henry Walters, owner.
Ellicott City	Rock Hill College	Brother Fabrician, registrar.
MASSACHUSETTS.		
Amherst	Amherst College Museum	B. K. Emerson, director.
Do	Massachusetts Agricultural College	C. E. Gordon, curator.
Andover	Abbot Academy	
Do	John-Esther Art Gallery	Jane B. Carenter, custodian.
Do	Phillips Academy	Charles Peabody, director.
Beverly	Beverly Historical Society	
Boston	Boston Society of Natural History	Edward Wigglesworth, chairman executive committee.
Do	Bostonian Society (Old State House)	Charles F. Reed, treasurer.
Do	Children's Art Center	Mr. Fitzroy Carrington, director.
Do	Children's Museum of Boston	Delia I. Griffin, director.
Do	Harvard Medical School, Warren Anatomical Museum.	William F. Whitney, director.
Do	Massachusetts Historical Society	
Do	Museum of Fine Arts	Arthur Fairbanks, director.
Do	Old South Association (The Old South Meeting House).	Richard W. Hale, treasurer. 16 Central Street.
Cambridge	Harvard University, Botanical Museum	George L. Goodale, honorary curator.
Do	Harvard University, Collection of Classical Antiquities.	George Henry Chase, curator.
Do	Harvard University, School of Architecture	H. Langford Warren, director.

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
MASSACHUSETTS—contd.		
Cambridge	Harvard University, Geological Museum	R. W. Sales, curator.
Do	Harvard University, Germanic Museum	Kuno Francke, curator.
Do	Harvard University, Gray Herbarium	B. L. Robinson, curator.
Do	Harvard University, Semitic Museum	David G. Lyon, curator.
Do	Harvard University, Mineralogical Museumt	John E. Wolff, curator.
Do	Harvard University, Museum of Comparative Zoology.	Samuel Henshaw, director.
Do	Harvard University, Peabody Museum of Archæology and Ethnology.	C. C. Willoughby, director.
Do	Harvard University, Social Museum	James Ford, director.
Do	Harvard University, Fogg Art Museum	E. W. Forbes, director.
Charlestown	United States Navy Yard	Arthur W. Stone, curator.
Clinton	Clinton Historical Society	E. W. Parkhurst, secretary.
Danvers	Danvers Historical Society	Henry N. Comey, curator.
Deerfield	Pocumtuck Valley Memorial Association	George Sheldon, curator.
Fitchburg	Fitchburg Historical Society	Theresa N. Garfield, librarian.
Do	Wallace Library and Art Gallery	George E. Nutting, librarian.
Gloucester	Cape Ann Scientific and Literary Association	
Greenfield	Historical Society of Greenfield	Mrs. Ida Hall, curator.
Haverhill	Haverhill Historical Society	Leonard W. Smith, curator.
Ipswich	Ipswich Historical Society	
Lancaster	Thayer Museum	John E. Thayer, director.
Leominster	Leominster Public Library	Florence E. Wheeler, curator.
Lexington	Lexington Historical Society	Mrs. Ellen B. Lane, custodian.
Lynn	Lynn Historical Society	C. H. Woodbury, president.
Marblehead	Marblehead Historical Society	Hannah Tutt, curator.
Marlborough	Marlborough Society of Natural History	Joel W. Giles, curator.
Medford	Medford Historical Society	Agnes W. Lincoln, curator.
Nantucket	Nantucket Historical Association	Susan E. Brock, curator.
New Bedford	Old Dartmouth Historical Society	Frank Wood, curator.
Newburyport	Historical Society of Old Newbury	
Northampton	Forbes Library	Lalia May Damon, acting librarian.
Do	Hillyer Art Gallery, Smith College	Alfred V. Churchill, director.
Do	Smith College	
Peabody	Peabody Historical Society	
Pittsfield	Berkshire Athenaeum and Museum	Harlan H. Ballard, curator.
Plymouth	Pilgrim Society	H. N. P. Hubbard, curator.
Rehoboth	Rehoboth Antiquarian Society	
Salem	Essex Institute	Henry K. Belknap, curator.
Do	Peabody Academy of Science, Peabody Museum	Edward S. Morse, director.
Sharon	Sharon Historical Society	George Kempton, custodian.
Somerville	Somerville Historical Society	
South Natick	Historical, Natural History, and Library Society	Ida H. Morse, curator.
Springfield	Springfield Art Museum	George Walter Vincent Smith, curator.
Do	Springfield Museum of Natural History	Mrs. Grace P. Johnson, curator.
Do	Connecticut Valley Historical Society	William C. Stone, curator.
Taunton	Bristol County Academy of Sciences	Frederic H. Carpenter, curator.
Topsfield	Topsfield Historical Society	George Francis Dow, curator.
Tufts College	Tufts College, Barnum Museum	H. V. Neal, curator.
Wellesley	Wellesley College, Farnsworth Museum of Art	Alice Van Vechten Brown, director.
Do	Wellesley College	Albert P. Morse, curator.
Westborough	Westborough Historical Society	Amelia Harrington, curator.
West Newbury	West Newbury Natural History Club	Helen S. Merrill, curator.
Williamstown	Williams College Geological Museum	H. F. Cleland.
Woburn	Woburn Public Library	George Hill Evans, librarian.
Woods Hole	U. S. Bureau of Fisheries	J. E. B. Pope, director.
Worcester	Clark University Educational Museum	W. H. Burnham.
Do	Worcester Art Museum	Raymond Wyer, director.
Do	Worcester Natural History Museum	Mrs. Ella L. Horr, custodian.
Do	Worcester Society of Antiquity	Ellery Bicknell Crane, librarian.
MICHIGAN.		
Alma	Alma College, Francis A. Hood Museum	H. M. MacCurdy, director.
Ann Arbor	University of Michigan	Alexander G. Ruthven, director.
Battle Creek	Public School Museum	
Detroit	Detroit Museum of Art	Clyde H. Burroughs, director.
East Lansing	Michigan Agricultural College	Walter B. Barrows, director.
Grand Rapids	Kent Scientific Museum	Herbert E. Sargent, director.
Houghton	Michigan College of Mines, Mineralogical Museum	A. E. Seaman, director.
Lansing	Michigan Historical Commission	George Newman Fuller, custodian.
Muskegon	Hackley Art Gallery	Miss Lulu F. Miller, director.
Three Oaks	Chamberlain Memorial Museum	

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
MINNESOTA.		
Collegeville	St. John's University	Severin Gertken, curator.
Minneapolis	Minnesota Academy of Sciences	William H. Dunwoody, president.
Do	Minneapolis Society of Fine Arts	John R. Van Derlip, director.
Do	Walker Private Gallery (807 Hennepin Ave.)	T. B. Walker, director.
Do	University of Minnesota	Christopher W. Hall, curator.
Northfield	Carleton College	
St. Paul	Hamline University	Henry L. Osborn, director.
Do	Minnesota Historical Society	Solon J. Buck, superintendent.
Do	St. Paul Institute Museum and Art Gallery	Arthur Sweeney, director.
St. Peter	Gustavus Adolphus College	J. A. Edquist, curator.
Winona	State Normal School	John M. Holzinger, curator.
MISSISSIPPI.		
Agricultural College	Mississippi Agricultural and Mechanical College	William N. Logan, director.
Jackson	Millsaps College	J. M. Sullivan, director.
Do	State Department of Archives and History	Dunbar Rowland, director.
MISSOURI.		
Columbia	State Historical Society of Missouri	Floyd C. Shoemaker, secretary.
Do	University of Missouri, Museum of Art and Archeology.	John Pickard, curator.
Doe Run	Graves Private Museum	F. P. Gaves, director.
Glasgow	Pritchett College	
Kansas City	Daniel B. Dyer Museum (Public Library Building).	
Do	Nelson Gallery of Art (Public Library Building).	Mrs. Helen R. Parsons, curator.
Rolla	Bureau of Geology and Mines	H. A. Buehler, director.
Do	Missouri School of Mines, Geological Museum	G. H. Cox, director.
Springfield	Drury College, Edward M. Shepard Museum	Charles H. Spurgeon, curator.
St. Louis	City Art Museum	R. A. Holland, director.
Do	Educational Museum of the St. Louis Public Schools.	C. G. Rathmann, director.
Do	Missouri Historical Society Museum	H. M. Whelpley, director.
Do	Washington University	
MONTANA.		
Helena	Montana State Library	W. Y. Pemberton, librarian.
NEBRASKA.		
Crete	Doane College Museum	Carl O. Carlson, curator.
Hastings	Hasting's College Museum	W. J. Kent.
Lincoln	Nebraska State Historical Society	E. E. Black, curator.
Do	Nebraska State Museum	Erwin H. Barbour, curator.
Omaha	Creighton University	William F. Rigge, director.
Do	Omaha Public Library and Museum	Edith Tobitt.
NEW HAMPSHIRE.		
Concord	New Hampshire Historical Society	Otis G. Hammond, superintendent.
Hanover	Dartmouth College, Butterfield Museum	C. H. Hitchcock, director.
Hopkinton	New Hampshire Antiquarian Society	Sarah U. Kimball, curator.
Keene	Keene High School	James F. Smith.
Manchester	Currier Gallery of Art	Arthur M. Heard.
Do	Manchester Historic Association	Fred. W. Lamb, curator.
NEW JERSEY.		
Flemington	Hunterdon County Historical Society	
Hackensack	Bergen County Historical Society (Johnson Public Library).	Frances A. Westervelt, chairman.
New Brunswick	Rutgers College, Geological Museum	J. A. Volney Lewis, curator.
Newark	New Jersey Historical Society (16 W. Park St.)	A. Van Doren Honeyman.
Do	The Newark Museum Association, The Newark Museum.	John Cotton Dana, director.
Princeton	Princeton University, Museum of Geology and Archeology.	William Libbey, director.
Do	Princeton University, Museum of Historic Art	Allan Marquand, director.
Salem	Salem County Historical Society	O. W. Acton, curator.
Trenton	New Jersey State Museum	Miss Helen C. Perry, curator.
Vineland	Vineland Historical and Antiquarian Society	Frank D. Andrews, secretary.
Woodbury	Historical Society of Gloucester County	

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
NEW MEXICO.		
Santa Fe	Historical Society of New Mexico	H. Woodruff, curator.
Do	Museum of New Mexico	Edgar Lee Hewitt, director.
Do	School of American Research, Museum of New Mexico.	
NEW YORK.		
Albany	Albany Institute	I. Townsend Lansing, president.
Do	New York State Museum	John M. Clarke, director.
Alfred	Alfred University, Allen Steinheim and Museum of Natural History.	James D. Bennehoff, curator.
Amsterdam	Montgomery County Historical Society	W. Max Reid, curator.
Binghamton	Broome County Historical Society, Art Gallery and Museum.	William F. Seward, custodian.
Brooklyn	The Brooklyn Museum	William Henry Fox, director.
Do	Polytechnic Institute of Brooklyn	
Do	Pratt Institute, School of Fine and Applied Art	Walter Scott Perry, director.
Buffalo	Buffalo Fine Arts Academy	Mrs. Cornelia B. Sage Quinton, director.
Do	Buffalo Historical Society	Frank H. Severance, secretary.
Do	Buffalo Society of Natural Sciences	Henry R. Howland, treasurer.
Buffalo	Canisius College	Henry Wolff, curator.
Canandaigua	Ontario County Historical Society	Charles F. Milliken, president.
Canton	St. Lawrence University	Nelson C. Dale, director.
Clinton	Hamilton College	F. E. Whitmore, curator.
Cortland	F. W. Higgins Museum	Mrs. Jeannette Murdock Diven, director.
Elmira	Arnot Art Gallery	
Geneseo	Livingston County Historical Society	E. H. Eaton, director.
Geneva	Hobart College	Caroline Bishop, curator.
Glen Iris	Genessee Valley Museum	F. T. Pember, curator.
Granville	Pember Library and Museum	
Hamilton	Colgate University	E. E. Haskell, director.
Ithaca	Cornell University, College of Civil Engineering.	Henry S. Williams, director.
Do	Cornell University, Geological Museum	E. P. Andrews, curator.
Do	Cornell University Museum of Classical Archæology.	
Do	Cornell University, Museum of Invertebrate Zoology.	John Henry Comstock, director.
Do	Cornell University, Museum of Vertebrate Zoology.	
Do	Cornell University, Veterinary College	Veranus A. Moore, director.
Johnstown	Johnstown Historical Society	Fred. Plamondon, curator.
Lake George	New York State Historical Society	
Staten Island	Staten Island Institute of Arts and Sciences, Public Museum.	Arthur Hollick, director.
Newburgh	State Museum (Washington's Headquarters)	Agnes E. Farrington, curator.
New York City	Academy Mount St. Vincent	
Do	American Museum of Natural History	F. A. Lucas, director.
Do	American Numismatic Society (156th St., west of Broadway).	Bauman L. Belden, director.
Do	Bronx Society of Arts and Sciences, Lorillard Mansion (Bronx Park).	
Brooklyn	Children's Museum (Bedford Park)	Anna B. Gallup, curator.
New York City	Columbia University, Egleston Mineralogical Museum.	Alfred J. Moses, director.
Do	Colonial Dames Society, Van Cortlandt Manor (Van Cortlandt Park).	
Do	Cooper Union, Museum for the Arts of Decoration.	Mrs. Eleanor G. Hewitt, director.
Do	Hispanic Society of America (156th St., west of Broadway).	E. L. Stevenson, secretary.
Do	The Metropolitan Museum of Art	Edward Robinson, director.
Do	Museum of French Art	McDougall Hawkes, president.
Do	New York Botanical Garden (Bronx Park)	N. L. Britton, director in chief.
Do	The New York Historical Society (170 Central Park West).	
Do	New York Public Library Art Galleries and Exhibition Rooms.	Edwin H. Anderson, director.
Do	New York University	
Do	Washington Headquarters Association (Jumel Mansion).	
Niagara	Niagara University	
Poughkeepsie	Vassar College, Natural History Museum	A. L. Treadwell, curator.

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
NEW YORK—continued.		
Rochester	Bevier Memorial, Mechanics' Institute	F. von der Lancken, superintendent.
Do	Memorial Art Gallery	George L. Herdle, director.
Do	Municipal Museum	Edward D. Putnam, curator.
Do	Rochester Historical Society	Robert T. Webster, curator.
Do	University of Rochester, Geological Museum	H. L. Fairchild.
Do	University of Rochester, Zoological Museum	Chas. Wright Dodge, curator.
Do	Ward's Natural Science Establishment	Frank A. Ward, president.
Schenectady	Schenectady County Historical Society	
Do	Union College, Natural History Museum	James H. Stoller, curator.
Schoharie	Schoharie County Historical Society	Henry Cady, curator.
Skaneateles	Skaneateles Library Association, Barrow Art Gallery.	Lydia A. Cobane.
Southampton, Long Island.	Southampton Art Museum	Samuel L. Parrish, director.
Syracuse	Onondaga Historical Association (311 Montgomery St.)	Mrs. L. L. Goodrich, custodian.
Do	Syracuse Museum of Fine Arts (Syracuse Public Library Building).	Fernando A. Carter, director.
Do	Syracuse University	Charles W. Hargitt, director.
Troy	Rensselaer Polytechnic Institute	John M. Clarke, director.
Utica	Oneida Historical Society	
Waterloo	Waterloo Library and Historical Society	Lulu M. Clark.
West Point	U. S. Military Academy, Ordnance Museum	W. H. Tschappat, in charge.
Yonkers	Phillipse Manor House	
NORTH CAROLINA.		
Concord	Scotia Seminary	
Davidson	Davidson College Museum	
Durham	Trinity College	James J. Wolfe, director.
Do	Trinity College Historical Society	
Raleigh	North Carolina Hall of History	Fred A. Olds, director.
Do	North Carolina State Museum	H. H. Brimley, curator.
Tryon	Green Museum	
Do	Polk County Museum	
Wake Forest	Wake Forest College	Mrs. George E. Morton.
NORTH DAKOTA.		
Agricultural College	Agricultural College	J. H. Shepperd, vice director.
Bismarck	State Historical Society Museum	Melvin R. Gilmore, curator.
Fargo	North Dakota Art Association	Mrs. Maie Douglas Rindlaub, director.
University	University of North Dakota Museum	E. J. Babcock, director.
OHIO.		
Berea	Baldwin-Wallace College, Herman Herzer Museum.	W. N. Speckmann, curator.
Cincinnati	Cincinnati Museum	J. H. Gest, director.
Do	Cincinnati Society of Natural History (312 Broadway).	Lester D. Collier, director.
Do	Cuvier Press Club	Charles Dury, custodian.
Do	Lloyd Library and Museum	W. H. Aiken, curator.
Do	Ohio Mechanics Institutes, Industrial Museum	John F. Shearer, president.
Do	University of Cincinnati	J. Ernest Carman, assistant curator.
Cleveland	Case School of Applied Science	F. M. Comstock, curator.
Do	Cleveland Museum of Art	Frederic Allen Whiting, director.
Do	Western Reserve Historical Society	W. H. Cathcart, director.
Do	Western Reserve University	F. H. Herrick, director.
Columbus	Columbus Art Association, Columbus Gallery of Fine Arts (51 N. Monroe Ave.).	Mrs. William McClellan Ritter, president.
Do	Ohio State Archæological and Historical Society	William C. Mills, curator.
Do	Ohio State University	
Dayton	Dayton Public Library and Museum	L. Simonton, custodian.
Delaware	Ohio Wesleyan University	Lewis G. Westgate, curator.
Fremont	Sandusky County Pioneer and Historical Association.	
Greenville	Museum of Carnegie Library	Charles L. Katzenberger, curator.
Hiram	Hiram College	George H. Colton, curator.
Norwalk	Firelands Historical Society	C. H. Gallup, director.
Oberlin	Oberlin College, Geological Museum	F. O. Grover.
Do	Oberlin College, Olney Art Collection	Mrs. A. A. Wright, custodian.
Springfield	Clark County Historical Society	Elizabeth Josephine Smart, secretary.
Tiffin	Heidelberg University	M. E. Kleckner, curator.

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
OHIO—continued.		
Toledo	Toledo Museum of Art	George W. Stevens, director.
Yellow Springs	Antioch College	
Youngstown	Mahoning Institute of Art	J. G. Butler, jr., president.
OKLAHOMA.		
Bacone	Bacone College	
Oklahoma City	Oklahoma Historical Society	W. P. Campbell, custodian.
OREGON.		
Corvallis	Oregon Agricultural College	A. B. Cordley, director.
Eugene	University of Oregon, Condon Geological Museum.	Warren D. Smith, curator.
Portland	Oregon Academy of Sciences	
Do	Oregon Historical Society	George H. Himes, curator.
Do	Portland Art Association, Museum of Art	Anna Belle Crocker, curator.
Do	Portland Free Museum	C. F. Weigand, curator.
PENNSYLVANIA.		
Allentown	Lehigh County Historical Society	Charles R. Roberts, secretary.
Do	Muhlenberg College	J. A. W. Haas.
Bradford	McKean County Historical Society	Mrs. Ada Cable.
Bryn Mawr	Bryn Mawr College	C. A. Reeds, director.
Doylestown	Bucks County Historical Society	H. C. Mercer, curator.
Easton	Lafayette College	John H. McCrackin.
Erie	Erie Public Museum	Thomas L. Austin, curator.
Germantown	Site and Relic Society of Germantown	Horace M. Lippincott.
Gettysburg	Pennsylvania College	E. S. Breidenbaugh, curator.
Harrisburg	Historical Society of Dauphin County	Mrs. L. A. Perry.
Do	Pennsylvania State Museum	Thomas Lynch Montgomery, director.
Haverford	Haverford College	Henry S. Pratt, director.
Lebanon	Lebanon County Historical Society	Charles D. Weimick.
Meadville	Allegheny College	Chester A. Darling, curator.
Meyerstown	Albright College	J. P. Sotber, curator.
New Brighton	Merrick Free Art Gallery, Museum, and Library.	Frank A. Merrick, director.
Norristown	Historical Society of Montgomery County	Frances M. Fox, curator.
Do	Regar Museum of Natural History	H. Severn Regar, curator.
Philadelphia	Academy of Natural Sciences	Samuel G. Dixon, president.
Do	Drexel Institute Museum	Hollis Godfrey.
Do	Independence Hall and National Museum	Wilfred Jordan, curator.
Do	Museum of the Grand Lodge of F. and A. M. of Pennsylvania.	Julius F. Sachse, curator.
Do	Numismatic and Antiquarian Society of Philadelphia, The Numismatic Collection.	F. D. Langenheim, curator.
Do	Pennsylvania Academy of the Fine Arts	John F. Lewis, president.
Do	Pennsylvania Museum (Memorial Hall, Fairmount Park).	Langdon Warner, director.
Do	The Philadelphia Commercial Museum (34th and Spruce Sts.).	W. P. Wilson, director.
Do	Presbyterian Historical Society, Museum and Gallery (Witherspoon Building).	Joseph B. Turner, general secretary.
Do	United States Mint, Numismatic Collection	T. L. Comparette, curator.
Do	University of Pennsylvania, The University Museum.	G. B. Gordon, director.
Do	University of Pennsylvania, Wistar Institute of Anatomy and Biology.	Milton J. Greenman, director.
Do	W. P. Wilstach Collection (Memorial Hall, Fairmount Park).	E. A. Shunk, custodian.
Do	Wagner Free Institute of Science	John G. Rothermel, director.
Do	Wister Institute of Anatomy	Milton J. Greenman, director.
Do	Zoological Society of Philadelphia, Pathological Museum.	Herbert Fox, curator.
Pittsburgh	Carnegie Institute, Department of Fine Arts	John W. Beatty, director.
Do	Carnegie Museum, Department of Carnegie Institute.	W. J. Holland, director.
Do	University of Pittsburgh	S. P. McCormick.
Pottsville	Schuykill County Historical Society	H. E. Greger, secretary.
Reading	Historical Society of Berks County	Andrew Shaaber, librarian.
Do	Reading Public Museum	Levi W. Mengel, director.
Scranton	Everhart Museum of Natural History, Science, and Art.	R. N. Davis, curator.
South Bethlem	Lehigh University, Geological Museum	Benj. L. Miller.
State College	Pennsylvania State College	
Swarthmore	Swarthmore College	Spencer Trotter, director.
Uniontown	Fayette County Historical Society	James Hannen, custodian.
Valley Forge	Valley Forge Museum of American History	W. Herbert Burk, director.
Warren	Warren Academy of Sciences	

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
PENNSYLVANIA—contd.		
Washington	Washington and Jefferson College	
Do	Washington County Historical Society	George B. Montgomery, secretary.
West Chester	Chester County Historical Society	Gilbert Cope, secretary.
Do	West Chester State Normal School	
Wilkes-Barre	Wyoming Historical and Geological Society	Horace Edwin Hayden, librarian.
Williamsport	The James V. Brown Library	O. R. Howard Thomson, librarian.
York	York County Historical Society	Robert C. Bair, secretary.
RHODE ISLAND.		
Barrington	Barrington Historic-Antiquarian Society	Emma S. Bradford, librarian.
Newport	Newport Historical Society	Edith M. Tilley, librarian.
Providence	Annmary Brown Memorial	Frank M. Cushman, custodian.
Do	Brown University:	
	Archeology	Dr. John Shapley, curator.
	Herbarium	Dr. Harlan H. York, curator.
Do	Park Museum (Roger Williams Park)	Harold L. Madison, curator.
Do	Rhode Island Historical Society	Howard M. Chapin, librarian.
Do	Rhode Island School of Design	L. Earle Rowe, director.
Warren	Warren Antiquarian Society	Rev. Joseph Hutcheson, president.
SOUTH CAROLINA.		
Charleston	Carolina Art Association	James Simons, president.
Do	Charleston Museum	Paul M. Rea, director.
Do	Daughters of the Confederacy, Charleston Chapter.	Martha B. Washington, president.
Clemson College	Clemson College, Natural History Museum	F. H. H. Calhoun, curator.
Clinton	Thornwell Museum	Wm. P. Jacobs, curator.
Columbia	University of South Carolina	A. C. Moore.
Greenville	Furman University Museum	G. A. Buist, curator.
Newberry	Newberry College, Sifley Museum	
Spartanburg	Wofford College	D. A. Du Pre, director.
SOUTH DAKOTA.		
Pierre	South Dakota State Historical Museum	Doane Robinson, director.
Rapid City	South Dakota School of Mines	Cleophas C. O'Harra, director.
Vermilion	University of South Dakota, State Geological Museum.	Freeman Ward, curator.
TENNESSEE.		
Clarksville	Southwestern Presbyterian University	
Knoxville	University of Tennessee, Geological Museum	C. H. Gordon, director.
Lebanon	Cumberland University	Kate A. Hinds, director.
Maryville	Maryville College	
Memphis	Cossitt Library Museum Association, Cossitt Library.	Lida Speed, custodian.
Nashville	Tennessee Historical Society	
Do	Vanderbilt University	L. C. Glenn, director.
Do	Walden University, Walden Museum	Mrs. H. H. Oneal, director.
TEXAS.		
Austin	University of Texas, Museum of Economic Geology.	J. A. Udden, director.
Dallas	Dallas Art Association	J. B. Martin, custodian.
Fort Worth	Fort Worth Museum of Art (Carnegie Library)	Mrs. Charles Scheuber, secretary.
Houston	Houston Museum	C. L. Brock, director.
Do	Rice Institute	
Do	Houston Art League (City Hall)	Mrs. George Heyer, president.
San Antonio	Scientific Society of San Antonio	Edward Heusinger, secretary.
Waco	Baylor University	John Kern Strecker, jr., curator.
UTAH.		
Salt Lake City	Desert Museum	James E. Talmage, director.
Do	Utah Art Institute	Edwin Evans, president.
Do	University of Utah	Orson Howard, curator.
VERMONT.		
Burlington	University of Vermont	G. H. Perkins, curator.
Middlebury	Middlebury College, Museum of Natural History	Avery E. Lambert, director.

XXIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
VERMONT—continued.		
Montpelier	Vermont Historical Society	Dorman B. E. Kent, librarian.
Do	Vermont State Museum	George H. Perkins, curator.
St. Johnsbury	The Fairbanks Museum of Natural Science	Mabel A. Shields, curator.
Westfield	Hitchcock Memorial Museum	E. S. Miller, curator.
VIRGINIA.		
Blacksburg	Virginia Polytechnic Institute	Ellison A. Smyth, jr., director.
Charlottesville	University of Virginia, Lewis Brooks Museum	Thomas L. Watson, director.
Emory	Emory and Henry College	
Lexington	Washington and Lee University	H. D. Campbell, director.
Richmond	Confederate Museum (White House of the Confederacy).	Susie B. Harrison, house regent.
Do	Department of Agriculture and Immigration	
Do	R. E. Lee Camp, No. 1, Confederate Veterans	A. S. Baird, acting commandant.
Do	Richmond College	C. H. Ryland, curator.
Do	The Valentine Museum	E. V. Valentine, president.
WASHINGTON.		
Pullman	State College of Washington	W. T. Shaw, curator.
Seattle	University of Washington, State Museum	F. S. Hall, curator.
Do	Seattle Fine Arts Society	E. G. Berg, director.
Tacoma	Ferry Museum	
Do	Tacoma Academy of Science	
WISCONSIN.		
Appleton	Lawrence College Museum	Rufus Mather Bagg, curator.
Ashland	Ashland public schools	
Baraboo	Sauk County Historical Society	H. E. Cole, president.
Beaver Dam	W. E. Snyder Museum	W. E. Snyder, owner.
Beloit	Beloit College, Logan Museum	Ira M. Buell, curator.
Darlington	Lafayette County Historical Society	P. H. Conley, president.
La Crosse	La Crosse Normal School	Albert H. Sanford, custodian.
Madison	G. A. R. Memorial Hall	Hosea Rood, custodian.
Do	State Historical Museum of Wisconsin	Charles E. Brown, chief.
Do	University of Wisconsin	
Milton	Milton College	A. R. Crandall, director.
Milwaukee	Milwaukee Downer College, Greene Memorial Museum.	Margaret L. Campbell, curator.
Do	Layton Art Gallery	George Raab, curator.
Do	Public Museum of the City of Milwaukee	Henry L. Ward, director.
Platteville	State Mining School	R. E. Davis, director.
Portage	Portage Public Library	
Racine	Racine Public Library	
Ripon	Ripon College	Frank M. Erickson, dean.
St. Francis	St. Francis Seminary, Salzmann Museum	William Metzdorf, director.
Waupun	Waupun Public Library	
WYOMING.		
Laramie	University of Wyoming	S. H. Knight, curator.

XXX.—Librarians of Public and Society Libraries.

Location.	Name of library.	Librarian.	Number bound volumes.
ALABAMA.			
Bessemer	Carnegie Library	Mrs. Nora Golson	7,066
Birmingham	Public Library	Carl H. Milam	58,098
Decatur	Carnegie Library	Louise Leadingham	3,900
Ensley	Public Library	Fanny T. Taber	4,900
Eufaula	Carnegie Library	Mrs. Willa E. Barron	4,820
Fairhope	Public Library	Mrs. L. J. M. Coming	4,000
Florence	Southern Library Association Library.	Mrs. G. H. Smith, acting	6,300

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
ALABAMA—continued.			
Gadsden	Public Library	Lena Martin	6,200
Huntsville	Carnegie Library	Mrs. J. L. Darwin	3,755
Mobile	Public Library	Miss M. L. Fisher	3,000
Montgomery	Carnegie Library	Laura M. Elmore	11,900
Do	State and Supreme Court Library.	J. M. Riggs	48,231
Selma	Carnegie Library	Bettie Keith	6,816
Talladega	Public Library	Mrs. Marie Fechet Kilburn	9,971
Troy	Carnegie Library	J. A. Boyd	4,523
Tuscumbia	Helen Keller Library	Mrs. J. B. McWilliams	6,581
Union Springs	Public Library	Mollie Norman	2,590
ARIZONA.			
Bisbee	Copper Queen Library	Carrie G. Vail	8,650
Douglas	Public Library	Mrs. Kate A. Goodrich	5,200
Flagstaff	do	Mrs. M. C. Wisehart	1,850
Globe	Old Dominion Library	Dayton W. Ennes	8,000
Phoenix	Public Library	Maude L. Hiatt	18,024
Do	State Library	Con P. Cronin	105,000
Prescott	Public Library	Mrs. Florence G. Emerson	2,500
Tucson	Carnegie Free Library	Mrs. Mary Brethitt	16,000
ARKANSAS.			
Fayetteville	Public Library	Lila G. Rollston	3,000
Fort Smith	Carnegie City Library	Ethel B. Kellar	8,093
Little Rock	Public Library	Beatrice Prall	29,000
Mena	do	Mrs. Ida H. Robbins	4,500
Pine Bluff	do	Mrs. D. C. Wilcox	1,944
Subiaco	New Subiaco Abbey Library	Vincent Orth	12,000
Texarkana	Y. M. C. A. Library	A. Roy Bartrein	8,000
CALIFORNIA.			
Alameda	Free Library	Mrs. Marcella H. Krauth	53,877
Alhambra	Public Library	Mrs. Theodora R. Brewitt	18,600
Bakersfield	Beale Memorial Free Public Library.	Sarah E. Bedinger	27,883
Do	Kern County Free Library	Mrs. Julia G. Babcock	52,000
Berkeley	Public Library	Celia A. Hayward	70,474
Chico	do	Laura A. Sawyers	7,886
Chula Vista	Free Public Library	Kathryn E. Burke	1,755
Colton	Public Library	Mrs. Anna E. Spragins	8,445
Colusa	do	Belle Crane	5,307
Corona	do	Helen L. Coffin	7,603
Coronado	do	Anna Allsebrook	7,161
Covina	do	Mrs. Henrietta M. Faulder	8,656
El Centro	Imperial County Free Library	Mrs. Thomas Beeman	15,937
Do	Public Library	Agnes F. Ferris	7,987
Eureka	Free Library	Henry A. Kendal	11,041
Do	Humboldt County Free Library	Ida M. Reagan	15,047
Exeter	Carnegie Library	Mrs. A. O. Woodworth	1,315
Fairfield	Solano County Free Library	Clara B. Dills	16,751
Fresno	County Free Library	Sarah E. McCardle	105,061
Grass Valley	Public Library	Mrs. O. M. Parsons	4,121
Hanford	Free Public Library	Eunice D. Steele	7,269
Do	Kings County Free Library	Katherine Post Ferris	34,000
Hayward	Free Library	Elizabeth Creelman	5,612
Hemet	Free Public Library	Mrs. Allison Aylesworth	3,653
Independence	Inyo County Free Library	Blanche Chalfant	9,115
Long Beach	Public Library	Zaidee Brown	50,492
Los Angeles	Los Angeles County Free Library.	Celia Gleason	186,812
Do	Public Library	Everett R. Perry	335,215
Los Gatos	do	Mrs. M. C. Proctor	8,220
Madera	Madera County Free Library	Mary E. Glock	25,335
Martines	Contra Costa County Free Library.	Mrs. Alice G. Whitbeck	42,233
Marysville	City Library	Mary E. Subers	9,000
Merced	Merced County Free Library	Winifred H. Bigley	35,414
Modesto	Stanislaus County Free Library.	Cornelia D. Provines	23,112
Monrovia	Public Library	Anne L. Crews	8,000
Napa	Goodman Public Library	C. B. Seeley	15,000
National City	Public Library	Winifred F. Woods	6,779
Nevada City	Free Public Library	Mrs. Melissa Fuller	5,000
Oakland	Free Library	Charles S. Greene	154,037
Do	Alameda County Library	Mary J. Barmby	45,714
Oceanside	Public Library	H. D. Brodie	7,665

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
CALIFORNIA—continued.			
Ontario	Public Library	Miss K. A. Monroe	10,142
Orange	Free Public Library	Clara C. Field	8,000
Oroville	Butte County Free Library	Essae M. Culver	21,927
Oxnard	Public Library	Ethel Carroll	9,648
Pacific Grove	do	Elizabeth S. Jones	8,125
Palo Alto	do	Frances D. Patterson	13,035
Pasadena	do	Nellie M. Russ	65,215
Petaluma	do	Sara Frances Cassiday	11,455
Pomona	do	Sarah M. Jacobus	37,137
Red Bluff	Herbert Kraft Free Library	Alice Gardiner	5,035
Redlands	A. K. Smiley Public Library	Artena M. Chapin	32,655
Richmond	Public Library	Norah McNeill	20,938
Riverside	do	Joseph F. Daniels	65,317
Sacramento	City and County Library	Lauren W. Ripley	130,000
Do	State Library	Milton J. Ferguson	270,000
Salinas	Monterey County Free Library	Anne Hadden	19,817
San Bernardino	Public Library	May Coddington	19,357
Do	San Bernardino County Free Library.	Caroline S. Waters	28,743
San Diego	Public Library	Althea H. Warren	79,464
Do	San Diego County Free Library	Jennie Herrman	32,804
San Francisco	Public Library	Robert Rea	212,807
San Jose	Free Public Library	Charles F. Woods	28,754
Do	Santa Clara County Free Library.	Stella Huntingdon	29,000
San Luis Obispo	Free Public Library	Mrs. E. L. Kellogg	12,637
San Mateo	Public Library	Inez M. Crawford	11,032
San Rafael	do	May Cooper	11,335
Santa Ana	Free Public Library	Jeanette E. McFadden	18,925
Santa Barbara	do	Mrs. Frances B. Linn	54,385
Santa Cruz	Public Library	Minerva H. Waterman	30,000
Santa Monica	do	Elfie A. Mosse	27,000
Santa Rosa	Free Public Library	Margaret A. Barnett	29,729
Sierra Madre	Public Library	Marian S. Gregory	7,104
South Pasadena	do	Mrs. Nellie E. Keith	16,100
Stockton	Free Public Library	Hattie M. Mann	76,506
Tulare	do	Mrs. Rosa D. Reardon	7,805
Vallejo	Public Library	L. Gertrude Doyle	13,554
Ventura	do	Florence Vandever	6,118
Visalia	Free Library	Mrs. M. J. McEwen	6,700
Do	Tulare County Free Library	Mrs. Bessie H. Twaddle	36,911
Watsonville	Carnegie Public Library	Belle M. Jenkins	8,320
Whittier	Public Library	Jessie Harris	13,311
Willows	Glenn County Free Library	Mrs. Mary P. Smith	9,000
Woodland	Yolo County Free Library	Eleanor Hitt	33,617
Yreka	Siskiyou County Free Library	Bessie B. Silverthorn	20,000
COLORADO.			
Alamosa	Carnegie Library	Mrs. Bertha E. Roberts	3,528
Boulder	Public Library	Lena R. Fenton	9,029
Canon City	do	Katherine Sortor	8,000
Colorado Springs	do	Lucy W. Baker	35,000
Denver	do	Chalmers Hadley	192,399
Do	State Library	Mary C. C. Bradford	50,000
Durango	Public Library	Sadie K. Sullivan	9,291
Eaton	do	Edith L. Coffman	2,900
Evergreen	do	Julia B. Douglas	1,800
Florence	do	Jessie M. Ludwick	2,788
Fort Collins	do	Elfreda Stebbins	13,000
Fort Morgan	Carnegie Public Library	Mrs. Estella M. McCutcheon	4,000
Grand Junction	do	Camille Wallace	7,000
Greeley	Public Library	Elma A. Wilson	13,000
Idaho Springs	Carnegie Public Library	Mrs. Margaret Robins	5,000
La Junta	Young Folks Library	Fannie P. Shank	20,070
Lamar	Carnegie Library	Josephine Silver	3,100
Leadville	Public Library	Louise S. Adams	6,439
Longmont	do	Rebecca Day	5,348
Loveland	Carnegie Library	Mrs. Anna Duffield	4,700
Manitou	do	Clotilde Reichmuth	3,327
Montrose	do	Mrs. Anna L. Christiansen	3,000
Ouray	Walsh Public Library	Mrs. Minnie M. Nowlan	8,969
Pueblo	McClelland Public Library	Mary L. Strang	30,000
Rocky Ford	Public Library	Mary L. Weaver	4,600
Salida	do	Mrs. H. I. Cook	5,905
Trinidad	do	Andrew J. Floyd	19,424

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
CONNECTICUT.			
Ansonia	Public Library	Anne G. Richards	25,000
Branford	Blackstone Memorial Library	Charles N. Baxter	26,872
Bridgeport	Public Library	Henry N. Sanborn	72,387
Bristol	do	Charles L. Wooding	35,637
Canaan	Douglas Library	Mrs. Nellie A. Preston	6,000
Cheshire	Public Library	Mary E. Baldwin	7,100
Colchester	Cragin Memorial Library	Mary A. Leal	6,500
Columbia	Saxton B. Little Free Library	Lillian W. Rice	6,950
Cornwall	Library Association	Mary J. Whitney	5,797
Danbury	Danbury Library	Mary P. Wiggin	24,775
Danielson	Free Public Library	E. R. Warren	10,000
Darien	Free Library Association	Clara Scofield	7,080
Derby	Derby Neck Library	Mary A. Hurley	16,400
Do	Public Library	Emma E. Vessey, acting	21,126
Durham Center	Durham Public Library	Mrs. Albert L. Hall	6,398
East Hartford	Public Library	Jessie W. Hayden	10,200
Ellington	Hall Memorial Library	Alice E. Pinney	6,800
Fairfield	Memorial Library	Florence J. Burr	9,543
Farmington	Village Library	Mrs. T. H. Root	9,000
Greenwich	Greenwich Library	Ella M. Brush	11,000
Groton	Bill Memorial Library	Abby M. Clarke	7,220
Hartford	Case Memorial Library	Charles S. Thayer	111,167
Do	Public Library	Caroline M. Hewins	135,000
Do	State Library	George S. Godard	200,000
Litchfield	Wolcott and Litchfield Circulating Library.	Katharine Baldwin	14,200
Lyme	Phœbe Griffin Noyes Library	Bessie Connolly	8,221
Madison	E. C. Scranton Memorial Library	Evelyn Meriwether	10,327
Meriden	Curtis Memorial Library	Corinne A. Deshon	24,830
Middlefield	Levi E. Coe Public Library	Alice Watrous	6,500
Middletown	Russell Library	Edna H. Wilder	20,000
Milford	Taylor Library	Howard C. Meserve	13,000
Moodus	East Haddam Public Library	Myra C. Sweet	8,000
Mystic	Mystic and Noank Library	Genevra E. Ricker	7,354
Naugatuck	Howard Whittemore Memorial Library.	E. M. Goodyear	14,187
New Britain	New Britain Institute	Anna G. Rockwell	75,000
New Canaan	New Canaan Library	Stella Waters	10,721
New Haven	Free Public Library	Willis K. Stetson	138,000
New London	Public Library	Frederick W. Edgerton	38,503
New Milford	do	Elizabeth H. Noble	11,800
Newtown	Beach Memorial Library	Abbie L. Peck	5,500
Norfolk	Norfolk Library	Charles B. Uffendale	20,700
Northfield	Gilbert Library	Wallace Humiston	5,000
North Granby	Frederick H. Cossitt Library	Helen M. Shaw	8,084
Norwalk	Public Library	Dotha Stone Pinneo	13,109
Norwich	Otis Library	Imogene A. Cash	43,000
Do	Peck Library	Helen Marshall	17,500
Old Saybrook	Acton Library	Sarah G. Granniss	7,908
Pomfret	Pomfret Library	M. L. Harvey	7,600
Portland	Buck Library	Frances P. Robinson	6,951
Putnam	Free Public Library	Emma J. Kinney	7,200
Ridgefield	Ridgefield Library	Jennie Smith	10,114
Rockville	Public Library	Edith M. Peck	11,482
Salisbury	Scoville Memorial Library	Charlotte B. Norton	11,739
Seymour	Public Library	Mrs. Edyth M. Adams	8,049
Sharon	Hotchkiss Memorial Library	Mary C. Mackey	7,870
Shelton	Plumb Memorial Library	Jessamine Ward	16,419
Simsbury	Free Library	Carrie L. MacRoy	13,360
South Manchester	do	Louise L. Bartlett	12,087
South Norwalk	Public Library	Mrs. Agnes L. Blanchard	13,446
Southington	do	Mrs. Charles H. Bissell	7,107
Southport	Pequot Library	Gertrude Whittemore	42,255
Stafford Springs	Stafford Public Library	Mabel G. Meyers	7,340
Stamford	Ferguson Library	Alice M. Colt	32,922
Stonington	Free Library	Mrs. K. Hahn	7,060
Stratford	Library Association	Frances B. Russell	17,622
Suffield	Kent Memorial Library	Madeline H. Spencer	19,300
Thomaston	Public Library	Martha E. Potter	6,301
Thompsonville	Enfield Public Library	Lillian V. Baily	7,582
Torrington	Torrington Library	Louise T. Mason	11,000
Uncasville	Raymond Library	Lucy P. Scholfield	6,100
Wallingford	Public Library	Minnie E. Gedney	15,000
Washington	Gunn Memorial Library	Fanny P. Brown	5,989
Waterbury	Silas Bronson Library	Helen Sperry	103,024
Watertown	Library Association	Jennie M. Smith	9,736
Westport	Public Library	Mrs. Edith V. Sherwood	9,000
Wethersfield	do	Belle Brigham	7,000

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
CONNECTICUT—continued.			
Willimantic	Dunham Hall Library	Mrs. Hattie B. Gates	6,534
Do	Public Library	Bell B. Riggleman	9,600
Winsted	Beardsley Library	Dorothy Whiting	14,369
DELAWARE.			
Dover	State Library	Earle D. Willey	80,000
New Castle	New Castle Library	Ruth E. Stewart	7,000
Odessa	Corbit Library	May C. Enos	7,000
Wilmington	Wilmington Institute Free Library.	Arthur L. Bailey	80,162
DISTRICT OF COLUMBIA.			
Washington	Library of Congress	Herbert Putnam	2,537,922
Do	Pan American Union (Columbus Memorial Library).	Charles E. Babcock	40,000
Do	Peabody Library	Eva Nelson Gilbert	9,000
Do	Public Library	George F. Bowerman	206,994
Do	U. S. Department of Agriculture	Claribel R. Barnett	145,000
Do	Weather Bureau	C. Fitzhugh Talman	37,000
	U. S. Department of Commerce	Anne G. Cross	109,000
Do	Bureau of Fisheries	Rose M. MacDonald	29,000
Do	Bureau of Standards	A. Fanti	16,339
Do	Coast and Geodetic Survey	William A. Masker, jr	14,000
	U. S. Department of the Interior:		
Do	Bureau of Education	John D. Wolcott	175,000
Do	Bureau of Mines	Mrs. Edith Spofford	5,500
Do	Geological Survey	Julia L. V. McCord	130,000
Do	Patent Office	H. H. Brogan	78,400
Do	U. S. Department of Justice	George Kearney	50,000
Do	U. S. Department of Labor	Laura A. Thompson	50,000
Do	U. S. Department of the Navy	Charles W. Stewart	75,000
Do	Naval Observatory	William D. Horigan	29,657
Do	U. S. Department of State, Bureau of Rolls and Library.	John A. Tonner	79,000
Do	U. S. Department of the Treasury.	Emma M. V. Triepel	10,416
Do	Bureau of Public Health Service.	D. S. Masterson	7,500
Do	Office of Solicitor of the Treasury.	James S. Maddux	7,000
	U. S. Department of War:		
Do	Army War College	Maj. J. R. M. Taylor	200,000
Do	Surgeon General's Office	Lieut. Col. C. C. McCulloch, jr	200,000
Do	U. S. Federal Board for Vocational Education.	Isabel L. Towner	1,550
Do	U. S. House of Representatives	H. C. McCarthy	500,000
Do	U. S. Interstate Commerce Commission.	Leroy S. Boyd	14,000
Do	U. S. Public Documents Library	Sarah Ambler	240,000
Do	U. S. Senate Library	Edward C. Goodwin	250,000
Do	U. S. Smithsonian Institution	Paul Brockett	300,000
Do	Bureau of American Ethnology.	Ella Leary	22,175
Do	U. S. Soldiers' Home Library	Mary E. Schick	15,000
FLORIDA.			
Bartow	Public Library	S. S. Green	3,980
Clearwater	do	Margaret L. Duncan	4,128
Deland	do	Mrs. H. E. Gaulden	3,000
Jacksonville	do	Lloyd W. Josselyn	51,000
Ocala	do	Louise Gamsby	4,336
St. Augustine	Free Public Library	Elizabeth Monk	9,200
St. Petersburg	Public Library	Emma M. Williams	5,100
Sarasota	Sarasota Library	Nellie Speirs	3,000
Tampa	Public Library	Helen V. Stelle	10,300
West Tampa	Free Public Library	Rita Castello	2,072
GEORGIA.			
Americus	Carnegie Library	Virginia Gunn	4,500
Atlanta	do	Tommie Dora Barker	97,076
Do	State Library	Mrs. Maud B. Cobb	70,358
Columbus	Public Library	Mrs. C. L. Gordy	13,409
Cordele	Carnegie Library	Louise O. Bercaw	4,730
Dublin	Public Library	Lily Hightower	4,425
Fitzgerald	do	Louisa Smith	3,400

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
GEORGIA—continued.			
Griffin	Hawkes' Free Library	Martha A. Kendrick	1,375
Macon	Price Free Library	Minnie F. Rice	7,000
Marietta	Clarke Library Association	Mabel C. Cortelyou	7,000
Montezuma	Carnegie Library	Mrs. Nettie Wilson	4,734
Newman	do	Katherine Powel	9,516
Rome	Public Library	Helen Eastman	5,900
Savannah	do	C. Seymour Thompson	25,000
Thomasville	do	Mary H. Hansell	5,000
Valdosta	Carnegie Library	Ruth Credille	4,632
Washington	Mary Willis Library	Mrs. Hardman T. Wood	12,000
IDAHO.			
American Falls	Public Library	Della Reed	2,800
Boise	Carnegie Public Library	Marion Dahl	22,700
Do	Idaho Free Traveling Library	Marie M. Schrieber	18,000
Do	State Law Library	Mrs. Stella B. Balderstone	30,000
Caldwell	Free Public Library	Lalla Bedford	4,400
Cœur d'Alene	Public Library	Helene G. Norton	5,000
Idaho Falls	do	Marion Orr	3,677
Lewiston	Carnegie Library	Margaret G. Guyer	10,000
Moscow	Public Library	Mary Duggan	5,400
Pocatello	Carnegie Public Library	Alice B. Madden, acting	3,166
Twin Falls	Public Library	Jessie Fraser	4,000
Wallace	do	Mrs. Addie R. Carpenter	6,000
Weiser	Outlook Public Library	Olive Lacey	2,150
ILLINOIS.			
Alton	Jennie D. Hayner Library Association.	Harriet C. Dolbee	15,000
Aurora	Public Library	James Shaw	36,816
Batavia	do	Cassie W. Stephens	10,069
Belleville	do	A. M. Wolleson	32,893
Belvidere	Ida Public Library	Elizabeth Ballard	12,785
Bloomington	Withers Public Library	Nellie E. Parham	30,000
Blue Island	Public Library	Louise Denton	8,435
Cairo	do	Mrs. L. L. Powell	21,700
Cambridge	Township Public Library	Mrs. Elizabeth Hawks	8,000
Canton	Parlin Public Library	Mrs. Josephine H. Resor	10,785
Carthage	Free Public Library	Mrs. Elizabeth E. Pennock	7,276
Centralia	Public Library	Celia M. Miles	7,400
Champaign	do	Ethel G. Kratz	23,307
Charleston	Carnegie Library	Margaret A. Gramesly	8,500
Chicago	John Crerar Library	Clement W. Andrews	391,356
Do	Municipal Reference Library	Frederick Rex	30,213
Do	Newberry Library	W. N. C. Carlton	378,148
Do	Public Library	Carl B. Roden	885,000
Chicago Heights	do	Sarah Driver	9,500
Chillicothe	Chillicothe Township Free Public Library.	Gladys E. Carroll	2,425
Clinton	Vespasian Warner Public Library.	Lillian Kent	13,488
Danville	Public Library	Josephine E. Durham	35,159
Decatur	Free Public Library	Mrs. Alice G. Evans	39,450
De Kalb	Haish Library	Josephine M. Jandell	22,433
Dixon	Public Library	Mary F. Wynn	17,902
Earlville	do	Fanny M. Burlingame	6,463
East St. Louis	do	J. Lyon Woodruff	31,156
Edwardsville	Free Public Library	Sarah Coventry	4,000
Elgin	Gail Borden Public Library	Katherine L. Abbott	51,000
Evanston	Public Library	Marcus Skarstedt	61,618
Fairbury	Dominy Memorial Library	Hazel M. Tucker	6,000
Freeport	Public Library	Harriet Lane	40,575
Galena	do	Ava E. Hurst	9,626
Galesburg	do	Anna F. Hoover	50,094
Geneseo	do	Ella L. Sawyer	13,726
Geneva	do	Gertrude E. Aiken	7,200
Gilman	Douglas Township Library	Eleanor R. Jones	4,053
Griggsville	Public Library	Mary Gibbs	4,000
Harvard	Delos F. Diggins Library	Ida L. Gehrig	6,007
Harvey	Public Library	Sarah Daniels	3,900
Highland Park	do	Helen Flinn	11,210
Hinsdale	do	Mrs. Ella F. Ruth	7,619
Hoopeston	do	Ellen G. True	9,912
Jacksonville	do	Lydia M. Barrette	22,962
Joliet	do	Mrs. Rena M. Barickman	47,088
Kankakee	do	Rose M. Mather	12,096
Kewanee	do	Eva Cloud	16,000

XXX.—Librarians of Public and Society Libraries—Continued

Location.	Name of library.	Librarian.	Number bound volumes.
ILLINOIS—continued.			
Knoxville	Public Library	Mrs. Charity A. Penn	3,913
La Grange	Free Public Library	Louise E. DeWitt	8,300
Lake Forest	Public Library	Frances E. Kemp	13,995
La Salle	do	Kathryne G. Coleman	14,000
Lincoln	do	Ida M. Webster	16,000
Litchfield	Free Public Library	Mary D. Wallace	4,000
Macomb	do	Mahala Phelps	12,574
Marion	Carnegie Library	Mary Goodall	2,986
Mattoon	Public Library	Blanche Gray	10,065
Maywood	do	Grace M. Rogers	8,158
Mendota	Graves Public Library	Sadie E. Wilcox	8,000
Minonk	Filger Library	Edith H. Ford	4,150
Moline	Public Library	Minnie Kohler	26,088
Monticello	Allerton Public Library	Lena Bragg	7,237
Morrison	Odell Public Library	Anna E. Corcoran	6,030
Naperville	Nichols Library	Mary B. Egermann	5,816
Oak Park	Public Library	Helen A. Bagley	33,540
Olney	Carnegie Library	Cora Belle Morris	5,892
Onarga	Free Public Library	Charlotte M. Amerman	6,000
Ottawa	Reddick's Public Library	Vera J. Snook	15,113
Pana	Public Library	Mrs. Nellie C. Russell	7,417
Paris	do	Cressie F. Strimple	11,125
Paxton	Carnegie Library	Emma Meharry	8,030
Pekin	Public Library	Anna M. Smith	11,751
Peoria	do	S. P. Prowse	124,337
Pittsfield	do	Lulu Quinby	5,917
Plano	Little Rock Township Public Library.	Mrs. Maude E. Henning	8,219
Polo	Buffalo Township Public Library.	E. Frances Barber	6,227
Pontiac	Public Library	Nell Thornton	10,238
Princeton	Matson Public Library	Agnes M. Robinson	9,914
Quincy	Free Public Library	Margaret Ringier	37,223
Rock Island	Public Library	Ellen Gale	30,305
Rockford	do	Jane P. Hubbell	75,693
Rockton	Talcott Free Library	Mary C. Forward	5,985
Savanna	Public Library	Hattie L. Greve	5,595
Shelbyville	Free Public Library	Eva J. Davis	9,486
Spring Valley	Public Library	Mrs. Mary Rees	3,940
Springfield	Lincoln Library	Henry C. Remann	73,165
Do	State Library	Mrs. Eva May Fowler	70,000
Sterling	Public Library	Sadie F. Murphy	10,500
Streator	do	Mrs. Mary L. Wright	21,548
Sycamore	do	Julia S. Osborne	7,050
Taylorville	do	Aline E. Emery	8,593
Urbana	Free Public Library	Ida B. Hanes	23,000
Warren	do	Mrs. R. D. Spofford	6,023
Warsaw	do	Mrs. Clara M. Mills	7,135
Watseka	Public Library	Lillian Barnes	6,000
Waukegan	do	Laura J. Perrin	9,000
Wheaton	Adams Memorial Library	Emma Boyd	6,979
Wilmette	Free Public Library	Anna E. Law	7,625
Winnetka	Public Library	Mary E. Hewes	10,493
Woodstock	do	Lura M. Wandrack	5,974
INDIANA.			
Alexandria	Public Library	Jennie Henshaw	5,275
Anderson	Carnegie Public Library	Mabel A. Wayne	20,000
Aurora	Public Library	Constance L. Wilder	5,565
Bedford	do	Georgia A. Friedley	11,888
Bloomington	do	Mary L. Blair	6,433
Bluffton	do	Nannie W. Jayne	10,177
Brazil	do	Agnes McCrea	9,500
Carlisle	do	Mrs. Luella B. Wagner	2,500
Carthage	Henry Henley Public Library	Mattie Clark	5,836
Columbia City	People's Free Library	Jessie H. Faust	12,000
Columbus	Public Library	A. J. Dipboye	14,500
Connersville	do	Isabel Ball	7,500
Crawfordsville	do	Susan K. Beck	14,415
Danville	do	Lou Robinson	6,600
Decatur	do	Annette L. Moses	8,000
Elkhart	Carnegie Library	Ella F. Corwin	24,824
Elwood	Public Library	Elizabeth McMullen	13,700
Evansville	do	Ethel F. McCollough	41,724
Do	Willard Library	Otilda Goslee	4,600
Fort Wayne	Public Library	Margaret M. Colerick	72,965
Frankfort	do	Olive Brumbaugh	10,927
Franklin	do	Leila B. Wilcox	5,966

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
INDIANA—continued.			
Gary	Public Library	Louis J. Bailey	70,341
Goshen	Carnegie Public Library	Elizabeth L. Rockwell	16,381
Greencastle	do	Belle S. Hanna	12,130
Greenfield	Public Library	Mrs. Catherine G. Poulson	7,320
Greensburg	Carnegie Public Library	Frank P. Montfort	8,857
Hammond	Public Library	Mrs. Jeanie L. Sawyer	24,225
Hartford City	do	Minta B. Fordney	13,338
Huntington	City Free Library	Winifred F. Ticer	26,000
Indianapolis	Public Library	Charles E. Rush	221,185
Do	State Library	Demarchus C. Brown	79,480
Jeffersonville	Township Public Library	Bertha F. Poindexter	9,941
Kokomo	Carnegie Public Library	Mrs. Dana H. Sollenberger	14,661
Lafayette	Public Library	Mrs. Virginia Stein	31,160
La Porte	do	Mrs. Jennie B. Jessup	22,516
Lebanon	do	Mrs. Cora O. Bynum	12,577
Linton	do	Mrs. Margaret McGauhy	4,700
Logansport	do	Alice D. Stevens	20,000
Madison	do	Nellie G. Harper	9,000
Marion	do	Daisy Springer	33,563
Michigan City	do	Amalia Aicher	15,000
Mishawaka	do	Lyndell Martling	6,944
Montpelier	do	Mrs. Marian P. Watts	7,843
Mount Vernon	Alexandrian Free Public Library.	Annabel Highman	7,871
Muncie	Public Library	Mary Torrance	33,000
New Albany	do	Annette L. Clark	25,000
Peru	do	Gertrude H. Thiebaud	15,213
Portland	Carnegie Free Library	Mary E. Boltin	7,860
Princeton	Public Library	Julia A. Mason	14,146
Rensselaer	do	Antoinette Price	10,000
Rochester	do	Grace Stingly	7,309
Seymour	do	Katherine Frazee	7,500
Shelbyville	Carnegie Public Library	Ida A. Lewis	13,753
South Bend	Public Library	Virginia M. Tutt	40,000
Terre Haute	Emeline Fairbanks Memorial Library.	Mrs. Sallie C. Hughes	58,000
Tipton	Public Library	Mrs. Sam Matthews	7,500
Union City	do	Jessie L. Kerr	6,353
Valparaiso	do	Bertha Joel	8,059
Vincennes	do	Ella Davidson	13,141
Wabash	Carnegie Library	Effie Roberts	8,856
Warsaw	Warsaw and Wayne Township Library.	Miriam Netter	5,928
Washington	Carnegie Public Library	Mary E. Waller	11,602
Whiting	Public Library	Louise Randall	14,000
IOWA.			
Albia	Public Library	Mrs. Laura M. Duncan	5,780
Algona	Free Public Library	Gertrude I. Sheridan	6,754
Ames	Public Library	Kittie B. Freed	11,131
Anamosa	do	Elsie J. Remley	5,447
Atlantic	Carnegie Free Public Library	Mary N. Adams	7,150
Belmond	Public Library	Mrs. Annie B. Case	1,700
Boone	Ericson Public Library	Bessie Moffatt	16,244
Burlington	Free Public Library	Miriam B. Wharton	45,000
Cedar Falls	Public Library	Eunice H. Overman	9,045
Cedar Rapids	Iowa Masonic Library	Newton R. Parvin	30,000
Do	Public Library	E. Joanna Hagey	40,000
Centerville	Drake Free Public Library	Anna G. Gault	10,000
Chariton	Free Public Library	Helen M. Grafton	4,586
Charles City	Public Library	Belle Caldwell	10,000
Cherokee	do	Lucile Ralston	8,678
Clarinda	do	Irene Burwell	10,771
Clinton	Free Public Library	Anna M. Tarr	25,275
Corning	do	Idelle Riddile	6,290
Council Bluffs	do	Ione Armstrong	34,000
Davenport	Public Library	Grace D. Rose	52,000
Des Moines	do	Forrest B. Spaulding	100,677
Do	State Library	Johnson Brigham	153,460
Dubuque	Carnegie Stout Library	Almira R. Wilcox	40,000
Eldora	Public Library	Mrs. M. E. Wheelock	7,500
Estherville	Free Public Library	Sade M. Davidson	8,261
Fairfield	do	H. M. Dysart	27,874
Fort Dodge	Public Library	Isabella C. Hopper	18,336
Fort Madison	Cattermole Memorial Library	Rebecca Hesser	9,000
Grinnell	Stewart Library	Jane Kuhns	12,869
Hampton	Public Library	Mary E. Kingsbury	6,106

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
IOWA—continued.			
Independence	Free Public Library	Minnie Markham	6,742
Indianola	Public Library	Mary E. McCoy, acting	10,517
Iowa City	do	Helen McRaith	18,324
Jefferson	do	Mary G. Barney	5,000
Keokuk	do	Nannie P. Fulton	25,584
Le Mars	do	Mae Smith	7,000
Malvern	do	Ruth Roberts	2,415
Manchester	Carnegie Library	Margaret Lindsay	8,150
Maquoketa	Free Public Library	Ida M. Simpson	10,421
Marion	Carnegie Library	Katherine M. Peirce	6,218
Marshalltown	Public Library	Anna Maude Kimberly	18,600
Mason City	do	Mrs. Bertha S. Baird	17,640
Mount Pleasant	Free Public Library	Elena E. Budde	15,162
Muscatine	P. M. Musser Public Library	Ellen G. Stocker	15,856
Nevada	Public Library	Alice Lewis	7,300
Newton	Free Public Library	Elizabeth McB. King	11,274
Onawa	Public Library	Helen E. Allen	10,000
Osage	Sage Public Library	Rena Gray	6,782
Oskaloosa	Free Public Library	Rachel B. Forbush	13,000
Ottumwa	Public Library	May B. Ditch	37,088
Pella	Carnegie-Viersen Library	Leona Renvers	8,123
Perry	Free Public Library	Flora B. Bailey	8,405
Shenandoah	Public Library	Berdena Jay	8,666
Sioux City	Free Public Library	Clarence W. Sumner	47,574
Tipton	Carnegie Public Library	Helen R. Schriver	8,267
Vinton	Public Library	Elizabeth F. Williams	9,660
Washington	Jane A. Chilcote Library	Eva G. Denny	9,736
Waterloo	Public Library	Maria C. Brace	29,000
Webster City	Kendall Young Library	E. D. Burgess	13,334
Winterset	Public Library	Mary Cassidy	9,690
KANSAS.			
Abilene	Free Public Library	Lida Romig	7,058
Anthony	Free Public Library and Reading Room.	Lora Orr	3,500
Arkansas City	Public Library	Mrs. Mary E. Ranney	7,100
Atchison	do	Mrs. Leontine Scofield	11,695
Burlington	Carnegie Free Public Library	Mrs. Della Hall	7,000
Chanute	Public Library	Myrtle Johnson	10,864
Coffeyville	do	Elizabeth J. Hull	7,900
Concordia	Free Public Library	Anna M. Shafer	6,500
El Dorado	Carnegie Library	Mildred Kilgore	8,500
Emporia	Free Library	Mildred Berrier	16,000
Fort Scott	Public Library	Mary L. Barlow	7,565
Great Bend	do	Bina Deighton	5,300
Hiawatha	Morrill Free Public Library	Rebecca D. Kisser	16,000
Hutchinson	Public Library	Ida Day	10,200
Independence	do	Anna M. Gemmell	9,709
Junction City	George Smith Public Library	Mary H. Barker	11,382
Kansas City	Public Library	Sara J. Greenman	36,251
Lawrence	Free Public Library	Virginia S. Edwards	14,980
Leavenworth	do	T. R. Temple	26,000
Manhattan	Carnegie Free Public Library	Mary Cornelia Lee	8,500
Newton	Free Library	Lydia A. McGaughey	7,474
Oswego	Free Public Library	Mrs. C. M. Wiley	4,000
Ottawa	Carnegie Free Library	Alice C. Graham	9,250
Paola	Free Public Library	Issie B. Pitts	10,676
Parsons	Public Library	Mrs. Belle Curry	10,700
Peabody	do	Emma F. Christ	12,000
Pittsburg	do	Mrs. Theresa G. Randolph	16,500
Salina	Free Public Library	Mrs. Delia E. Brown	18,560
Topeka	do	Caroline Medlicott	34,027
Do	State Library	James L. King	85,202
Washington	Public Library	Stella H. Johnson	2,500
Wichita	City Library	Julius Lucht	15,246
KENTUCKY.			
Covington	Public Library	Anne M. Spears	21,427
Danville	Danville Library	Louise Cooke	4,000
Frankfort	State Library	Frank K. Kavanaugh	116,626
Harrodsburg	Public Library	Mrs. Fred. G. Currey	5,200
Henderson	do	Susan S. Towles	9,520
Hickman	Carnegie Library	J. M. Calvin	5,000
Knottsville	Free Library	Teresa Carries	3,000
Lawrenceburg	Carnegie Library	Miss Russell Chambers	3,799
Lexington	Public Library	Florence Dillard	32,191
Louisville	Free Public Library	George T. Settle	216,114

XXX.—LIBRARIANS OF PUBLIC AND SOCIETY LIBRARIES—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
KENTUCKY—continued.			
Marysville	Public Library	Mary E. Richeson	9,000
Mount Sterling	Athenæum Library	Mrs. Jennie M. Samuels	4,000
Newport	Public Library	Henrietta J. Litzendorff	13,112
Nicholasville	Withers Memorial Library	Lyde Hughes	4,324
Owensboro	Carnegie Free Public Library	Susannah Bishop	8,775
Paducah	Carnegie Public Library	Jessica Hopkins	20,709
Paris	Public Library	Imogen Redmon	7,220
Pippapass	Free Library	Mrs. Arthur W. Lloyd	5,678
Somerset	Public Library	Mrs. Wynona McDaniels	6,300
Versailles	Logan-Helm Memorial Library	Miss M. W. Edwards	2,224
LOUISIANA.			
Alexandria	Public Library	Lillie J. Thornton	4,211
Baton Rouge	do	Sarah Stirling	5,000
Jennings	Carnegie Library	Mrs. Minna L. Roberts	3,200
Lake Charles	Carnegie Public Library	Mrs. C. M. Dees	5,000
New Orleans	Howard Memorial Library	William Beer	58,000
Do	Public Library	Henry M. Gill	161,309
Do	State Library	Alice M. Magee	40,000
MAINE.			
Alfred	Parsons Memorial Library	Mary C. Emerson	7,715
Andover	Public Library	Mabel E. French	6,997
Auburn	do	Georgiana Lunt	21,535
Augusta	Lithgow Library and Reading Room.	Julia M. Clapp	13,000
Do	State Library	Henry E. Dunnack	120,000
Bangor	Public Library	Charles A. Flagg	57,569
Bar Harbor	Jesup Memorial Library	I. M. Suminsbey	12,500
Bath	Patten Free Library	Margaret Rogers Foote	22,212
Belfast	Free Library	Annie Leonora Barr	18,452
Biddeford	Public Library	Emma Hatch	18,000
Brunswick	Curtis Memorial Library	Mary G. Gilman	16,000
Calais	Free Library and Reading Room	Alice L. Delaney	11,700
Camden	Public Library	Mrs. Emma J. Hosmer	7,956
Castine	Witherle Memorial Library	Katherine Davenport	5,500
Cherryfield	Public Library	Ida E. Wakefield	1,500
Corinna	Stewart Free Library	Mrs. Edna A. Hutchins	7,000
Cumberland Mills	Cumberland Mills Library	Lucy S. Anderson	7,250
Dexter	Town Library	Lizzie S. Springall	13,181
Dover	Thompson Free Library	Mary E. Averill	11,952
Eastport	Peavey Library	Virginia P. Kemp	12,000
Eliot	William Fogg Library	M. Louise Foye	8,270
Ellsworth	City Library	Mary A. Hodgkins	7,018
Fairfield	Lawrence Public Library	Mrs. Anna R. Reed	8,600
Farmington	Cutler Memorial Library	Mrs. Flora A. Brooks	15,000
Freeport	B. H. Bartol Library	Annette H. Aldrich	4,900
Gardiner	Public Library	Mrs. B. C. Berry	15,000
Gorham	Baxter Memorial Library	Victoria A. Magnusson	10,050
Guilford	Memorial Library	Ernestine Hale	5,500
Hallowell	Hubbard Free Library	Annie F. Page	12,500
Houlton	Cary Memorial Library	Anna Barnes	12,000
Kennebunk	Public Library	Mrs. C. R. Bragdon	11,000
Kittery	Rice Public Library	Eleanor L. Lovell	11,475
Lewiston	Public Library	Angie E. Tracy	26,340
National Soldiers' Home	National Soldiers' Home Library	Frank L. Dow	13,128
New Gloucester	Public Library	Helen A. Moseley	7,000
Norway	do	Helen H. Holmes	9,000
Old Town	do	Amy S. Wood	7,000
Orr's Island	Orr's Island Library	Abbie F. Stevens	5,500
Paris	Hamlin Memorial Hall	Mrs. C. E. Shaw	2,700
Pittsfield	Public Library	Minnie Porter	7,700
Portland	do	Alice C. Furbish	76,000
Presque Isle	Free Library	Lucinda B. Marston	5,800
Rangeley	Public Library	Mrs. L. J. Kempton	5,980
Rockland	do	Nancy I. Burbank	14,952
Saco	Dyer Library Association	John Haley	18,000
Sanford	Public Library	Bentley Aveyard	5,000
Skowhegan	do	Mrs. Fanny J. Cabot	14,256
South Berwick	Fogg Memorial Library	Elizabeth H. Goodwin	8,334
South Paris	Paris Public Library	Mrs. Ella A. Wight	5,000
South Poland	Poland Spring Library	Frank Carlos Griffith	7,200
Thomaston	Public Library	Lizzie S. Levensaler	7,349
Vinal Haven	do	Linda A. Jones	5,000
Waterville	do	Jennie M. Smith	13,500
Westbrook	Memorial Library	Lillian Quinby	16,000
Wilton	Free Public Library	Lucy E. Palmer	4,760
Yarmouthville	Merrill Memorial Library	Ellen S. Mitchell	8,800

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MARYLAND.			
Annapolis	State Library	Nettie V. Mace	98,000
Baltimore	City Library	Wilbur F. Coyle	20,000
Do	Enoch Pratt Free Library	Bernard C. Steiner	358,595
Frederick	Frederick County Free Library	Eleanor R. Elder	3,225
Hagerstown	Washington County Free Library	Mary L. Titcomb	33,000
Kensington	Noyes Library	Mrs. Orin J. Field	2,500
Reisterstown	Tillard Memorial Free Library	Aileen McKenney	2,300
MASSACHUSETTS.			
Abington	Public Library	A. Brewster Vaughn	12,095
Acton	Memorial Library	Arthur F. Davis	12,227
Adams	Free Library	Mabel L. Moore	20,000
Amesbury	Public Library	Alice C. Follansbee	17,551
Amherst	do	Inez Chapman	14,000
Andover	Memorial Hall Library	Edna A. Brown	23,780
Arlington	Robbins Library	Elizabeth J. Newton	29,455
Ashburnham	Stevens' Public Library	Mrs. N. T. Wheeler	7,598
Ashfield	Belding Memorial Library	May G. Boice	8,015
Ashland	Public Library	Mrs. Ellen M. Arnold	8,945
Athol	do	Edith Barber	11,785
Attleboro	do	Mrs. Lucinda F. Spofford	19,903
Ayer	Ayer Library	S. Adelaide Blood	11,000
Barnstable	Sturgis Library	Elizabeth C. Nye	16,565
Barre	Town Library	Carrie E. Read	14,301
Bedford	Free Public Library	Fannie Wood	12,877
Belchertown	Clapp Memorial Library	Mrs. Cora S. Burnett	10,870
Belmont	Public Library	Lucy D. Luard	18,003
Bernardston	Cushman Library	Nellie M. G. Pierce	13,100
Beverly	Public Library	Martha P. Smith	35,000
Billerica	Bennett Public Library Association.	Emma M. Whitford	6,300
Blackstone	Free Public Library	P. F. Fitzgerald	14,000
Bolton	Public Library	Fidelia C. Newton	5,970
Boston	Boston Athenæum Library	Charles Knowles Bolton	285,000
Do	State Library	Lawrence B. Evans	194,116
Do	Public Library	Charles F. D. Belden	1,161,189
Bourne	Jonathan Bourne Public Library.	Jane Storms	6,900
Braintree	Thayer Public Library	Lucretia F. Hatch	17,666
Brewster	Ladies Library	Alma Rogers	7,300
Bridgewater	Public Library	Lucia L. Christian	19,516
Brimfield	do	Mary Anna Tarbell	9,000
Brockton	do	Frank H. Whitmore	76,586
Brookfield	Merrick Public Library	Harriet G. Brown	23,083
Brookline	Public Library	Louisa M. Hooper	96,095
Bryantville	Cobb Library	Mrs. Julia Morton	5,376
Cambridge	Public Library	T. Harrison Cummings	117,074
Canton	do	Mrs. Lucy D. Downes	19,000
Charlemont	Free Town Library	Alice Bemis	5,000
Charlton	Free Public Library	Ruth P. Wakefield	5,866
Chatham	Eldredge Public Library	Edna M. Hardy	6,900
Chelmsford	Adams Library	Mrs. E. R. Clark	10,800
Chelsea	Public Library	Medora J. Simpson	19,520
Cheshire	Library Association	Emma E. Martin	7,190
Chicopee	Public Library	Anne A. Smith	42,000
Clinton	Bigelow Free Public Library	Helen A. Thissell	44,244
Cohasset	Paul Pratt Memorial Library	Sarah B. Collier	17,320
Concord	Free Public Library	Helen W. Kelley	47,029
Conway	Field Memorial Library	Cora M. Hassell	9,519
Cotuit	Public Library	Beulah B. Borden	6,278
Cummington	Bryant Free Library	Mrs. Lottie W. Tower	9,000
Dalton	Free Public Library	Mrs. Caroline R. Flickinger	12,106
Danvers	Peabody Institute Library	Mrs. Emilie D. Patch	30,162
Dedham	Public Library	Anna P. Rolland	25,000
Dover	Town Library	Elizabeth F. Heard	6,700
Dudley	Conant Library	Leora E. Dugar	5,248
Duxbury	Free Library	Sara B. Higgins	9,659
East Bridgewater	Public Library	Lucy L. Siddall	8,800
East Douglas	Simon Fairfield Public Library	Rosalie E. Williams	6,300
East Northfield	Talcott Library	Virginia T. Smith	8,960
Easthampton	Public Library	Hazel M. Benjamin	16,000
Essex	T. O. H. P. Burnham Public Library.	Ethelyn B. Story	6,500
Everett	Frederick E. Parlin Memorial Library.	Ellen L. Johnson	32,000
Do	Shute Memorial Library	Pearl L. Purinton	11,812
Fairhaven	Millicent Library	Galen W. Hill	24,374

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MASSACHUSETTS—contd.			
Fall River	Public Library	George W. Rankin	103,118
Falmouth	Free Public Library	Pamelia F. Robbins	12,085
Fitchburg	Public Library	George E. Nutting	60,781
Florence	Lilly Library	Mrs. S. Minerva Paxton	6,000
Framingham	Town Library	Emma L. Clarke	39,100
Franklin	Franklin Library	Mrs. Ella G. Campbell	10,400
Gardner	Levi Heywood Memorial Library	Lilian Callahan	16,614
Georgetown	Peabody Library	Lois P. Noyes	8,892
Gloucester	Sawyer Free Library	Rachel S. Webber	22,000
Grafton	Public Library	Lucy W. Biscoe	14,616
Great Barrington	Mason Library	Emma W. Sheldon	16,938
Greenfield	Public Library	May Ashley	35,350
Groton	do	Emma F. Blood	14,246
Groveland	do	Helena M. Nickerson	5,692
Hadley	Goodwin Memorial Library	George C. Marsh	6,000
Hamilton	Public Library	Annie S. Preston	5,000
Hanover Center	John Curtis Free Library	Bessie M. Sproul	8,000
Harvard	Public Library	Mrs. James L. Whitney	8,229
Hatfield	Free Public Library	Ellen A. Waite	5,792
Haverhill	Public Library	John G. Moulton	110,000
Hingham	do	Albert L. Stephenson	16,000
Hinsdale	do	Mrs. Cora Lovell	10,000
Holbrook	do	Zenas A. French	10,000
Holden	Gale Free Library	M. Addie Holden	7,575
Holliston	Public Library	Frances J. Hayes	2,000
Holyoke	do	Frank G. Willcox	53,560
Hopedale	Bancroft Memorial Library	Harriet B. Sornborger	13,372
Housatonic	Ramsdell Public Library	Lydia A. Fuller	9,000
Hubbardston	Free Public Library	Mrs. Lucy H. Clough	5,726
Hudson	Public Library	Grace M. Whittemore	12,248
Ipswich	Free Public Library	Mary B. Maine	12,817
Kingston	Frederic C. Adams Public Library	Mrs. Jennie F. McLauthlen	9,865
Lancaster	Town Library	Virginia M. Keyes	41,128
Lanesboro	Newton Memorial Library	Mrs. E. G. Loring	2,000
Lawrence	Free Public Library	William A. Walsh	72,766
Lee	Library Association	Mary Stallman	10,500
Leicester	Public Library	Mary D. Thurston	16,000
Lenox	Lenox Library	Edith O. Fitch	19,500
Leominster	Public Library	Florence E. Wheeler	34,444
Lexington	Cary Memorial Library	Marian P. Kirkland	30,064
Lincoln	Public Library	Lydia J. Chapin	10,684
Littleton	Reuben Hear Library	Margaret E. Thacher	14,012
Lowell	City Library	Frederick A. Chase	102,000
Lunenburg	Ritter Memorial Library	L. Frances Jones	9,181
Lynn	Public Library	Clarence E. Sherman	108,053
Magnolia	Magnolia Library	Mrs. C. C. Sargent	7,400
Malden	Public Library	Herbert W. Fison	71,879
Manchester	do	Jennie C. Sargent	12,000
Mansfield	do	Ida F. Hodges	8,500
Marblehead	Abbott Public Library	Mrs. Sarah E. Gregory	22,000
Marion	Library Association	Alice A. Ryder	9,106
Marlboro	Public Library	John P. McGee	30,000
Mattapoisett	Free Public Library	Grace A. Tilden	7,375
Maynard	Public Library	Mrs. Sarah F. Nyman	5,500
Medfield	do	Lucretia M. Johnson	4,500
Medford	do	Abby L. Sargent	53,732
Melrose	do	Carrie M. Worthen	21,000
Mendon	Taft Public Library	Mrs. Lena W. George	5,900
Merrimac	Public Library	Susanna I. Sayre	6,000
Methuen	Nevins Memorial Library	Harriet L. Crosby	22,500
Middleboro	Public Library	Mary M. Eddy	22,474
Middleton	Flint Public Library	Edith L. Fletcher	8,131
Milford	Town Library	Nathaniel F. Blake	20,909
Millbury	Sutton Free Library	Mrs. Florence Freeland	5,000
Milton	Public Library	Gertrude E. Forrest	29,737
Monson	Horatio Lyon Memorial Library	Maud C. Sweet	13,873
Montague	Town Library	Kate A. Armstrong	7,983
Mount Hermon	Schauffler Memorial Library	Anna L. Miller	14,950
Nahant	Public Library	May W. Perkins	25,204
Nantucket	Nantucket Atheneum	Clara Parker	20,000
Natick	Morse Institute	Mira R. Partridge	29,000
Needham	Free Public Library	Esther C. Johnson	20,000
New Bedford	do	George H. Tripp	163,053
Newburyport	Public Library	John D. Parsons	54,440
Newton	Free Library	Harold T. Dougherty	100,182
North Abington	Public Library	Gertrude M. Gleason	10,000
North Adams	do	Mabel Temple	38,854

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MASSACHUSETTS—contd.			
North Andover	Stevens Memorial Library	Elizabeth M. Pond	15,000
North Attleboro	Richards Memorial Library	Ada M. Perry	15,000
North Brookfield	Appleton Library	William S. Gooch	5,000
Do	Free Public Library	Katharine E. Smith	8,000
North Chelmsford	Public Library	Anna C. MacKay	7,699
North Easton	Ames Free Library	Mary L. Lamprey	20,873
North Reading	Flint Memorial Library	Addie W. Gowing	6,260
Northampton	Forbes Library	J. L. Harrison	147,000
Northboro	Free Library	M. Evelyn Potter	15,600
Northfield	Dickinson Memorial Library	Mrs. Nellie G. Randall	10,814
Norton	Public Library	Mabel E. Roode	8,443
Norwell	James Library	Marion G. Merritt	5,000
Norwood	Morrill Memorial Library	Jane A. Hewitt	21,160
Orange	Wheeler Memorial Library	N. Gertrude Hendrickson	15,800
Orleans	Snow Library	Mary S. Cummings	6,472
Oxford	Free Public Library	Mrs. Clara A. Fuller	11,000
Palmer	Young Men's Library	Clifton A. Hobson	12,000
Peabody	Peabody Institute Library	John E. Keefe	48,201
Pepperell	Lawrence Memorial Library	Helen M. Wiley	18,325
Petersham	Memorial Library	Fannie G. Prince	8,000
Phillipston	Phillips Free Public Library	Mrs. Cora A. Dunton	6,850
Pittsfield	Berkshire Athenæum and Museum.	Harlan H. Ballard	69,000
Plymouth	Public Library	Lilian C. Kerr	15,000
Princeton	do	Susan A. Davis	8,500
Provincetown	do	Abbie C. Putnam	14,000
Quincy	Thomas Crane Public Library	Alice G. White	44,512
Randolph	Turner Free Library	Alice M. Belcher	26,953
Reading	Public Library	Bertha L. Brown	9,434
Revere	do	Harriet T. Fenno	11,000
Rockland	Memorial Library	Mrs. Lida A. Clark	15,000
Rockport	Public Library	Mabel L. Woodfall	8,084
Royalston	Phinehas S. Newton Library	Mrs. Emeline E. Mackenzie	4,318
Salem	Public Library	Gardner M. Jones	66,000
Do	Salem Athenæum	Mrs. Alice H. Stone	28,054
Sandwich	Weston Memorial Library	Annie A. Rogers	6,000
Saugus	Free Public Library	Mrs. Edith F. Nickerson	13,000
Sharon	Public Library	Isadora B. Paine	8,000
Shelburne Falls	Arms Library	Mrs. S. A. Field	11,000
Sherborn	Dowse Library	Elizabeth D. Coolidge	8,000
Shirley	Public Library	Grace M. Kilburn	6,600
Shrewsbury	Free Public Library	Mabel E. Knowlton	11,982
Somerset	do	Frances M. Rogers	4,000
Somerville	Public Library	George H. Evans	113,221
South Braintree	Thayer Public Library	Lucretia F. Hatch	17,262
South Dartmouth	Southworth Library	Theodosia P. Chase	8,500
South Hadley	Gaylord Memorial Library	Rebecca F. Smith	7,055
South Natick	Bacon Free Library	Mrs. Adelaide Williams	4,982
South Sudbury	Goodnow Library	Mrs. Warren Hunt	10,400
South Weymouth	Fogg Library	Ruth N. Tower	8,795
Southboro	Fay Library	Sarah V. Stivers	13,976
Southbridge	Jacob Edwards Library	Ella E. Miersch	22,636
Spencer	Richard Sugden Library	Clarence R. Hodgdon	14,500
Springfield	City Library Association	Hiller C. Wellman	240,000
Springfield(Longmeadow)	Richard Salter Storrs Library	Mrs. Lucy A. Booth	7,122
Sterling	Conant Free Public Library	Pearl L. Heywood	9,625
Stockbridge	Library Association	Agnes J. Goodwin	11,000
Stoneham	Public Library	Margaret O. Wood	12,084
Stoughton	do	Amelia Clifton	15,000
Stow	Randall Memorial Library	Mrs. S. M. Lawrence	6,000
Sturbridge	Joshua Hyde Public Library	Susan L. Haynes	9,806
Sunderland	Sunderland Library	Daisy B. Montague	6,059
Swampscott	Public Library	Sarah L. Honors	12,208
Swansea	Free Public Library	Otis O. Wright	7,924
Taunton	Public Library	Joshua E. Crane	67,378
Templeton	Boynton Public Library	Grace E. Blodgett	10,500
Tewksbury	Public Library	Abbie M. Blaisdell	6,200
Topsfield	Town Library	Annie P. Gleason	12,380
Townsend	Public Library	Mrs. Evelyn L. Warren	6,945
Turners Falls	Carnegie Public Library	Louise S. Partenhemer	9,000
Tyngsboro	Littlefield Library	Jennie J. Bancroft	8,093
Upton	Town Library	Helen A. Fay	7,370
Uxbridge	Free Public Library	Beatrice P. Sprague	12,000
Vineyard Haven	do	Bessie H. Stanton, acting	6,000
Wakefield	Beebe Town Library	H. Gertrude Lee	19,093
Walpole	Public Library	Margaret B. Forster	15,399
Waltham	do	Orlando C. Davis	45,189

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MASSACHUSETTS—contd.			
Ware	Young Men's Library Association.	Mary L. Smith	14,487
Warren	Public Library	Joseph G. Hastings	12,487
Warwick	Free Public Library	Mrs. Alice B. Hastings	6,249
Watertown	....do	Lydia W. Masters	48,271
Wayland	....do	Margaret E. Wheeler	15,295
Webster	....do	Mrs. Phoebe P. Kingsbury	13,500
Wellesley	Free Library	Elizabeth H. Camp	20,099
Wenham	Public Library	Benjamin H. Conant	6,000
West Boylston	Beaman Memorial Public Library.	Annie M. Waite	10,000
West Bridgewater	Public Library	Mrs. Hattie E. Cary	7,876
West Brookfield	Merriam Public Library	Helen P. Shackley	7,200
West Newbury	Public Library	Sarah O. Bailey	5,887
West Springfield	....do	Marion Bowler	11,000
Westboro	....do	Flora B. Brigham	18,811
Westfield	Westfield Atheneum	George L. Lewis	37,000
Westford	J. V. Fletcher Library	Mary P. Bunce	16,488
Westhampton	Reunion Library	Gilbert I. Flint	5,530
Westminster	Forbush Memorial Library	Sadie F. Greene	8,000
Weston	Public Library	Maude M. Pennock	23,520
Weymouth	Tufts Library	Abbie L. Loud	30,608
Whitinsville	Social Library	Mary R. Clarke	13,225
Whitman	Public Library	Ellena S. Spilsted	14,000
Williamsburg	Meekins Memorial Library	Jennie L. Baker	8,750
Williamstown	Public Library	Lucy F. Curtis	8,300
Winchendon	Beals Memorial Library	Georgia Farnum	12,005
Winchester	Public Library	Cora A. Quimby	22,973
Winthrop	....do	Sabina M. Nelson	13,787
Woburn	....do	Ethel A. Wallace, acting	50,010
Worcester	Free Public Library	Robert K. Shaw	244,047
Do	Webster Free Public Library	Phoebe P. Kingsbury	11,255
Wrentham	Fiske Public Library	Mary A. Smith	6,464
Yarmouthport	Yarmouth Library Association	Mrs. Lydia C. Matthews	9,700
MICHIGAN.			
Adrian	Public Library	Margaret F. Jewell	25,275
Albion	....do	Elizabeth Farnham	6,325
Allegan	....do	Lenora E. Porter	7,500
Alpena	....do	Emily E. Oliver	6,500
Ann Arbor	....do	Nellie S. Loving	24,150
Bay City	....do	Agnes Van Valkenburgh	43,004
Do	Sage Library	Molly M. Gilbert	38,300
Benton Harbor	Public Library	Theodosia Falkingham	10,400
Big Rapids	Phelps Free Library	Mary Morrissey, acting	9,920
Cadillac	Public Library	William F. Sanborn	16,807
Charlotte	Free Public Library	Emily B. Robb	9,937
Cheboygan	Carnegie Free Library	Amy M. Bell	7,818
Coldwater	Free Public Library	Florence M. Holmes	1,982
Detroit	Public Library	Adam Strohm	482,865
Dowagiac	....do	Grace ReShore	10,350
Escanaba	Carnegie Public Library	Lura E. Brubaker	10,843
Fenton	A. J. Phillips Public Library	Ella M. Williams	10,640
Flint	Public Library	Lena F. Caldwell	20,495
Grand Rapids	....do	Samuel H. Ranck	185,228
Greenville	School and Public Library	Alice Fuller	5,800
Harbor Springs	Christian Association Library	Mrs. Bertha Fuller	5,515
Hillsdale	Mitchell Public Library	Mary Pratt	13,296
Holland	Public Library	Jennie R. Kanters	11,295
Houghton	....do	Harriet L. Allen	13,500
Howell	Carnegie Library	E. Gladys Cook	10,162
Hudson	Public Library	Mamie E. Havens	9,645
Ionia	Hall-Fowler Memorial Library	Nina K. Preston	8,295
Iron Mountain	Carnegie Public Library	Leonore C. Carpenter	15,520
Ironwood	Carnegie Library	Emily Chisholm	10,000
Ishpeming	Carnegie Public Library	Mrs. Nellie E. Brayton	25,000
Jackson	Public Library	John S. Cleavinger	50,000
Kalamazoo	....do	Flora B. Roberts	50,000
Lansing	Public School Library	Mrs. E. Jennie McNeal	28,159
Do	State Library	Mary C. Spencer	200,000
Lowell	Public Library	Hazel E. Maynard	7,260
Ludington	....do	Alice L. Wing	9,500
Manistee	City and School Library	Angie Messer	19,500
Marquette	Peter White Public Library	Alma A. Olson	26,423
Mendon	Public Library	N. E. Strickland	6,153
Menominee	Spies Public Library	Cordelia Pleister	13,246

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MICHIGAN—contd.			
Monroe	Dorsch Memorial Library	Mrs. Jennie S. Wallace	9,824
Mount Clements	Public Library	Agnes L. Snover	13,092
Muskegon	Hackley Public Library	Lulu F. Miller	58,300
Niles	Public Library	Orrill P. Coolidge	9,392
Painesdale	Sarah Sargent Paine Memorial Library.	Amelia T. Pickett	9,738
Petoskey	Public Library	Amy Lusk	7,000
Pontiac	Ladies' Library	Agnes P. Pudworth	6,000
Port Huron	Ladies' Library Association	Cora M. Carson	5,000
Do	Public Library	Katharyne Sleneau	28,000
Portland	do	Edna J. Bandfield	3,600
Quincy	Free Public Library	Maud S. Barnes	4,598
Royal Oak	Township Library	Elizabeth V. Briggs	3,350
Saginaw	Butman Fish Memorial Library.	Anna Benjamin	17,484
Do	East Side Public Library	Mary E. Dow	20,647
Do	Hoyt Library	Harriet H. Ames	36,000
St. Joseph	Public Library	M. Bernice Tuscott	8,200
Sault Ste. Marie	Carnegie Public Library	Adah Shelly	12,969
Sturgis	Carnegie Free Public Library	Alida Patterson	7,129
Tecumseh	Public Library	Elizabeth Widney	6,775
Three Rivers	Free Public Library	Sue I. Silliman	15,000
Traverse City	Public Library	Alice M. Wait	17,462
Ypsilanti	Ladies' Library	Mrs. Lucy B. Loomis	11,707
MINNESOTA.			
Albert Lea	Public Library	Henryetta Armstrong	7,100
Alexandria	Free Public Library	Mrs. Margaret A. McCord	9,090
Anoka	Public Library	Mrs. Georgia A. Goss	6,422
Austin	Carnegie Public Library	Tayne Burgess	8,000
Chisholm	Public Library	Margaret Palmer	9,000
Cloquet	do	Mildred E. Riley	6,691
Crookston	Carnegie Public Library	Elizabeth Lommen	5,000
Crosby	Public Library	Mrs. William C. Deering	1,800
Duluth	do	Frances E. Earhart	72,398
Fairmont	do	Minnie Bird	5,907
Faribault	do	Sarah E. Le Crone	14,500
Fergus Falls	do	Amy A. Lewis	7,550
Hastings	Public and School Library	Stella Telford	5,575
Hibbing	Public Library	Dorothy Hurlbert	22,690
Keewatin	do	Helen Young Prall	3,097
Little Falls	Carnegie City Library	Mrs. Jenny Lind Blanchard	6,255
Luverne	Public Library	Mrs. D. E. Halbert	4,346
Mankato	do	Maud van Buren, acting	25,000
Minneapolis	do	Gratia A. Countryman	334,763
Montevideo	do	Edith M. Crandall	8,729
Moorhead	do	Ethel S. McCubrey	8,102
Morris	do	Agnes Torpey	5,960
Mountain Iron	Carnegie Public Library	Stella Stebbins	5,132
Northfield	Public Library	Mary L. Southworth	7,040
Owatonna	Free Public Library	Carol L. Clarkson	18,824
Pipestone	Public Library	May C. Funk	7,050
Red Wing	Carnegie-Lawther Library	Grace L. Meyer	9,733
Rochester	Public Library	Edna Emerick	15,000
St. Cloud	do	Mrs. Marie E. Brick	15,028
St. Paul	do	W. Dawson Johnston	161,609
Do	State Library	Elias J. Lien	84,450
Sauk Center	Bryant Library	Eva M. Davis	9,503
Stillwater	Public Library	Mary E. Corson	14,785
Two Harbors	do	Vivadale Schultz	5,599
Virginia	do	Grace M. Stevens	20,000
Willmar	do	Amy Hanscom	4,382
Winona	Free Public Library	Jeannette A. Clark	36,891
MISSISSIPPI.			
Biloxi	King's Daughters Library	M. T. Rodenberg	3,500
Clarksdale	Carnegie Public Library	Miss Hoyland L. Wilson	4,300
Greenville	Public Library	Amanda Worthington	10,000
Jackson	State Library	Mrs. W. F. Marshall	100,000
Meridian	Public Library	Mrs. A. K. Hamm	7,000
Natchez	Fisk Memorial Library	M. B. Montgomery	3,000
Vicksburg	Public Library	Mrs. Celestine W. Forster	4,020
West Point	Carnegie Library	Lucy Heard	2,500
Yazoo City	Library Association	Mrs. F. Barksdale	7,000

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MISSOURI.			
Albany	Carnegie Public Library	May Erskine	4,456
Bonne Terre	Memorial Library	Frances Stevens	3,878
Carthage	Public Library	Alice R. Gladden	10,949
Hannibal	Free Public Library	Nancy C. McLachlan	14,087
Independence	do	Carrie Wallace	16,000
Jefferson City	do	Julia Andrae	8,295
Do	State Library	A. J. Menteer	63,688
Joplin	Free Public Library	Mary B. Swanwick	29,895
Kansas City	Public Library	Purd B. Wright	235,000
Louisiana	do	Elizabeth Irwin	6,041
Maryville	Free Public Library	Mary Grace Langan	7,655
Moberly	do	Mrs. Bessie S. Lee	9,000
Nevada	do	Mary E. Barr	3,000
St. Joseph	Public Library	Jesse Cunningham	85,000
St. Louis	do	Arthur E. Bostwick	501,319
Sedalia	do	Irene E. Blair	19,943
Springfield	do	Harriet M. Horine	15,410
Trenton	Jewett Norris Library	Mrs. Maud Crecelius	6,000
MONTANA.			
Anaconda	Hearst Free Library	Elizabeth L. Thomson	15,640
Big Timber	Carnegie Library	Caroline Carnes	3,009
Billings	Parmly Billings Memorial Library.	Mrs. Henry E. Garber, jr	18,000
Bozeman	Free Library	Geneva Cook	12,660
Butte	Free Public Library	Gertrude Nichols	48,737
Deer Lodge	William K. Kohrs Memorial Library.	Grace Reely	6,500
Dillon	Public Library	Mary L. Innes	8,778
Fort Benton	Chouteau County Free Library	Pauline Madden	8,000
Great Falls	Public Library	Louise M. Fernald	23,067
Hardin	Big Horn County Library	W. E. Fearis	1,850
Havre	Carnegie Public Library	Mrs. Mary F. Homan	4,345
Helena	Public Library	Josephine M. Haley	55,000
Do	State Law Library	Ashburn K. Barbour	32,000
Kalispell	Public Library	Elizabeth P. Ritchie	7,225
Lewiston	Carnegie Public Library	Clara M. Main	6,550
Livingston	do	Ruth V. Steadman	7,200
Malta	Phillips County Library	Mrs. Mae White, acting	2,620
Miles City	Carnegie Library	Mrs. Laura Zook	7,000
Missoula	County Free Library	Elizabeth B. Howell	21,000
Red Lodge	Public Library	Mrs. M. A. Smith	3,000
NEBRASKA.			
Aurora	Public Library	Lillian Moore	5,466
Beatrice	Free Public Library	Merlyn Abbott	11,980
Columbus	Public Library	Rosemary Riddell	5,660
David City	do	Lillian M. Simpkins	6,500
Falls City	Lydia Brunn Wood Library	Mary Hutchings	9,427
Fremont	Public Library	Sara E. Gosselink	10,000
Grand Island	do	Daisy Houck	6,967
Hastings	Carnegie Library	Mrs. Ida E. Capps	9,051
Kearney	Public Library	Mrs. Pauline Frank	19,000
Lincoln	City Library	Lulu Horne	44,399
Do	State Library	H. C. Lindsay	75,626
McCook	Public Library	Grace Willetts	5,704
Nebraska City	do	Anne Stevenson	7,000
Omaha	do	Edith Tobitt	135,000
Plattsmouth	do	C. Olive Jones	7,345
York	do	Ada O. Haggard	8,876
NEVADA.			
Carson City	State Library	Frank J. Pyne	81,186
Reno	Free Public Library	E. N. Damon	19,000
Tonopah	Public Library	Mrs. Grace R. Moore	3,500
NEW HAMPSHIRE.			
Alton	Public Library	Annie A. Wheeler	4,000
Amherst	Town Library	Mrs. Alice M. Wyman	6,036
Antrim	James A. Tuttle Library	Mrs. J. E. Perkins, acting	7,000
Berlin	Free Public Library	Lottie C. Kailey, acting	9,882
Bristol	Minot-Sleeper Library	Mrs. Mary A. Dodge	8,436
Charlestown	Silsby Free Public Library	Anna L. Webber	8,000

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
NEW HAMPSHIRE—contd.			
Claremont	Fiske Free Library	Mrs. Mary S. Ide	11,000
Colebrook	Public Library	Sarah E. Rolfe	5,000
Concord	do	Grace Blanchard	30,000
Do	State Library	Arthur H. Chase	166,000
Dover	Public Library	Caroline H. Garland	47,000
Dublin	do	Minnie E. Leffingwell	6,000
East Derry	Taylor Library	C. Louise Bachelder	7,741
East Jaffrey	Jaffrey Public Library	Lucia B. Cutter	7,300
Exeter	Public Library	Carrie W. Byington	20,362
Fitzwilliam	Town Library	Annie L. Colby	8,000
Franconia	Abbie Greenleaf Library	Eva M. Aldrich	5,171
Franklin	Public Library	Mrs. Barron Shirley	11,418
Greenland	Weeks Library	Lillian A. Odell	6,390
Hancock	Town Library	Annie L. Putnam	7,047
Hanover	Howe Library	Etta M. Clark	8,308
Henniker	Tucker Free Library	Mrs. M. Marion Cole	7,000
Hinsdale	Public Library	Charlotte S. Slate	10,500
Hollis	Social Library	M. Louise Stratton	5,647
Hudson	Hills Memorial Library	Mrs. Eliza B. Leslie	6,440
Keene	Public Library	Mary L. Saxton	21,253
Kingston	Nichols Memorial Library	Mrs. Nellie F. Ingalls	6,621
Laconia	Public Library	Olin S. Davis	24,000
Lancaster	do	Martha W. Brackett	12,000
Lebanon	do	Emma Morris	7,974
Lisbon	do	Nettie L. Kelsea	5,242
Littleton	do	Jennie E. Smith	12,000
Manchester	City Library	F. Mabel Winchell	85,000
Marlboro	Frost Free Library	Mabelle F. Derby	7,000
Meredith	Public Library	Mrs. Lillian Wadleigh	6,000
Milford	Free Library	Annabell C. Secombe	13,204
Nashua	Public Library	Sarah P. Barker	38,954
New Hampton	Gordon-Nash Library	Ina A. Bickford	16,272
New Ipswich	New Ipswich Library	Frances L. Nash	7,139
Newmarket	Public Library	Mrs. Charles H. Mathes	6,230
Newport	Richards Free Library	Mrs. Charles Miller	10,474
Peterboro	Town Library	Ruby Tillinghast	18,000
Portsmouth	Public Library	Hannah G. Fernald	23,200
Rochester	do	Lillian E. Parshley	20,097
Tilton	Hall Memorial Library	Mary M. Emery	8,525
Wakefield	Public Library	Alice C. Milliken	7,508
Walpole	Town Library	Frances M. Sabin	11,000
Warner	Pillsbury Free Library	Mary B. Harris	12,000
Whitefield	Public Library	Alice E. Dodge	7,170
Wilton	Gregg Free Library	Bessie F. Bales	10,070
Wolfeboro	Brewster Free Library	Elizabeth Brewster	6,500
Woodsville	Free Public Library	Mrs. N. J. Chamberlin	6,000
NEW JERSEY.			
Asbury Park	Public Library	Josephine W. Porter	16,000
Atlantic City	do	Alvaretta P. Abbott	38,000
Bayonne	Free Public Library	Mary G. Peters	62,000
Belleville	Public Library	Mrs. E. A. Shattuck	17,132
Bernardsville	Bernards Library Association	Katharine D. Hinman	7,400
Bloomfield	Jarvie Memorial Library	Mrs. Metta R. Ludey	19,342
Bridgeton	Bridgeton Library	Emma V. Wallen	10,000
Burlington	Burlington Library	Lydia Weston	20,505
Camden	Free Public Library	William H. Ketler	65,000
Cranford	do	May D. Bradley	7,500
Dover	do	Martha A. Burnet	8,000
East Newark	East Newark Library	Thomas J. Carey	10,456
East Orange	Free Public Library	Louise G. Hinsdale	55,721
Edgewater	Free Library	Clara M. Beckley	5,526
Elizabeth	Free Public Library	C. A. George	54,748
Englewood	do	Irene A. Hackett	17,482
Gladstone	Gladstone and Peapack Public Library.	J. H. Wood	2,000
Glen Ridge	Free Public Library	Margaret D. Brower	10,742
Hackensack	Johnson Public Library	Mary Boggan	22,465
Haddonfield	Free Public Library	Anna L. Cawley	8,000
Hoboken	do	Thomas F. Hatfield	75,750
Jersey City	do	Edmund W. Miller	187,374
Kearny	do	M. Belle KilGour	12,598
Lakewood	Public Library	Katharine L. Hinsdale	7,400
Long Branch	do	Mary Clarkson	5,000
Millville	do	Madeline Powell	4,000
Montclair	Free Public Library	Alta M. Barker	42,820
Morristown	Morristown Library and Lyceum	Mary P. Parsons	15,000

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
NEW JERSEY—continued.			
Navesink	Library Association	Adelaide H. Wright	2,400
New Brunswick	Free Public Library	Mary N. Walker	37,412
Do	Gardner A. Sage Library	John C. Van Dyke	53,068
Newark	Free Public Library	John C. Dana	260,000
Newton	Dennis Library	A. Elizabeth Case	8,075
Nutley	Free Public Library	Irene Calvert Phillips	6,053
Orange	Free Library	Elizabeth H. Wesson	42,975
Passaic	Public Library	Edna B. Pratt	41,893
Paterson	Free Public Library	George F. Winchester	74,457
Perth Amboy	Public Library	Alice Goddard	23,000
Plainfield	Public Library and Reading Room.	Florence M. Bowman	58,545
Princeton	Free Public Library	Agnes Miller	10,000
Rahway	Library Association	Adele W. Lupton	19,400
Riverton	Free Library	Elizabeth B. Campbell	6,000
Rockaway	Free Public Library	Etta Davey	3,100
Rutherford	....do	Dorothy E. Burrows	9,370
Salem	Salem Library	Cornelia Prior	14,141
Somerville	Free Public Library	Elizabeth Carter	7,835
South Orange	Free Public Library	Julia Schneider	10,640
Summit	....do	Emilie Hill	14,600
Tabor	Mount Tabor Free Library	Charlotte E. Johns	4,100
Trenton	Free Public Library	Howard L. Hughes	82,586
Do	State Library	John P. Dullard	110,000
Vineland	Free Public Library	Minnie G. Clark	7,500
Weehawken	....do	Louise I. Macpherson	18,000
West Hoboken	....do	Paul M. Konert	16,909
Westfield	....do	Bessie Smith	9,385
NEW MEXICO.			
Alamogardo	Public Library	Mary Darbyshire	2,018
Albuquerque	....do	Mrs. H. F. Dixon	9,644
Carlsbad	Norman Crosby Library		2,242
Deming	Public Library	Mrs. Maud C. Hoffman	3,038
East Las Vegas	Carnegie Public Library	Elisabeth Cooley	7,700
Santa Fe	Public Library	Nannie Simmons	5,000
NEW YORK.			
Addison	Public Library	W. E. Barron	5,000
Albany	Free Library	Bertha Cudebec	25,000
Do	State Library	James I. Wyer, jr	477,506
Do	Union Free Library	Agnes H. McCarthy	10,000
Do	Young Men's Association, Central Library.	E. Elizabeth Barker	23,813
Do	Y. M. A. Pruyn Library	Mabel McKay	14,833
Albion	Swan Library	Lillian A. Achilles	14,000
Aldea	Ewell Free Library	Mary E. Patrell	5,800
Amsterdam	Free Library	Mrs. Katherine B. Cooley	16,555
Angelica	....do	Mrs. Mary G. Horner	8,182
Auburn	Seymour Library	Elizabeth Porter Clarke	30,000
Bath	Davenport Library	Mary L. Dodd	9,000
Belmont	Free Library	Ella Sortore	6,044
Binghamton	Public Library	William F. Seward	44,000
Boonville	Erwin Library	Mrs. Alice F. Owen	6,775
Bridge Hampton	Hampton Library	May T. Van Scoy	11,562
Bronxville	Public Library	Mrs. Roger M. Sherman	7,855
Brooklyn	....do	Frank P. Hill	912,065
Do	Pratt Institute Free Library	Edward F. Stevens	115,000
Buffalo	Grosvenor Library	Augustus H. Shearer	119,452
Do	Public Library	Walter L. Brown	364,540
Do	Historical Society Library	Mrs. Anna A. Andrews	40,000
Cambridge	Public Library	May Carpenter	7,983
Camden	Library Association	Mrs. Mary A. Manzer	6,000
Canandaigua	Wood Library	S. N. Lee	7,980
Canastota	Public Library	Mrs. Nellie H. Willis	10,019
Canton	Free Library (Benton Memorial)	Fanny E. Wead	8,338
Catskill	Public Library	Emily F. Becker	10,000
Cazenovia	....do	Elizabeth B. Needham	15,000
Chatham	Union Free School Library	Margaret E. Meyer	9,746
Clinton	Kirkland Town Library	Ruth W. Raymond	6,372
Cohoes	City Library	Elmer E. Bell	6,700
Cooperstown	Village Club and Library	Grace E. Cokeley	5,534
Corning	Free Library	E. Pearl Wheeler	12,000
Cortland	Franklin Hatch Library	Margaret H. Force	6,225
Coxsackie	Heermance Memorial Library	Esther C. Johnson	7,680
Dansville	Public Library	Susie M. Parker	7,000
Delhi	Free Library	Stanley S. Kilkenny	6,059

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
NEW YORK—continued.			
Dryden	Southworth Library	Jennie Kennedy	11,575
Dunkirk	Free Library	Carlina M. Monchow	17,510
East Hampton	do	E. C. Hedges	11,000
Ellenville	Public Library	Mrs. B. B. Demarest	7,500
Elmira	Steele Memorial Library	Mrs. Kate D. Andrew	24,044
Endicott	Free Library	Margery C. Quigley	5,500
Fredonia	Darwin R. Barker Library	Florence S. Hall	11,539
Fulton	Public Library	Frances V. Forsyth	8,544
Geneseo	Wadsworth Library	Ethel W. Frazer	21,143
Geneva	Free Library	Margaret A. Hayes	10,000
Glen Cove	Public Library	Eugenie C. Thorne	10,000
Glens Falls	Crandall Free Library	Gertrude Ferguson	12,882
Gloversville	Free Library	Lucy Edel	32,026
Gouverneur	Reading Room Association	Mollie L. Parker	6,290
Greene	Moore Memorial Library	Mary Summers	7,497
Greenport	Greenport Library	Elizabeth Deale	2,900
Greenwich	Free Library	Robert L. Shanks	4,461
Haverstraw	King's Daughters' Public Library.	Mary E. Van Orden	7,680
Herkimer	Free Library	Edith M. Sheaf	13,000
Homer	Phillips Free Library	Mary A. Ferguson	600,200
Hornell	Public Library	Mary E. Windsor	21,087
Hudson	Hendrick Hudson Chapter Free Library.	Maud A. Rice	7,300
Huntington	Library Association	Mary F. Gaines	9,000
Ilion	Free Public Library	Nellie Mae Cheney	17,603
Irvington-on-Hudson	Guiteau Library	Emma Knodel	9,736
Ithaca	Cornell Library Association	Mary E. Mack, assistant	29,226
Jamestown	James Prendergast Free Library.	Lucia T. Henderson	26,336
Johnson City	Johnson City Library	Hazel E. Kilian	6,800
Johnstown	Public Library	Katherine M. Seaman	15,676
Kingston	City Library	Marion Hebert	10,235
Lawrence	High School Library	Fred De L. Kray	8,649
Little Falls	Public Library	Mabel E. Richards	11,498
Lockport	do	Carrie F. Gates	11,652
Lyons	Civic Club Free Library	Mrs. Ella B. Leonard	5,000
Marathon	Peck Memorial Library	J. W. Livingston	6,500
Middletown	Middletown Library	Mary K. Van Keuren	17,961
Millbrook	Free Library	Myrtle I. Roy	7,575
Moravia	Powers Library	Mrs. Sarah A. C. Butler	9,650
Mount Vernon	Public Library	Frances D. Thomson	38,202
New Rochelle	Public Library	Mary E. Huntington	42,000
New York	do	Edwin H. Anderson	2,691,392
New York (Jamaica P. O.)	Queens Borough Public Library.	Jessie F. Hume	252,313
Newark	Free Public Library	Louise Merriman	10,707
Newburgh	Free Library	Lillian O. Estabrook	39,887
Niagara Falls	Public Library	Earl W. Browning	25,000
North Tonawanda	do	Mrs. Mary T. Warren	15,587
Norwich	Guernsey Memorial Library	N. Louise Rucketshler	14,056
Nyack	Nyack Library	Helen L. Powell	10,482
Ogdensburg	Public Library	Mary K. Hasbrouck	19,363
Olean	do	Maud D. Brooks	14,000
Oneonta	do	Mrs. Elizabeth W. Blackall	15,538
Ossining	do	Almira A. LeFevre	16,002
Oswego	City Library	Robert S. Kelsey	9,000
Owego	Coburn Free Library	Nano Loring	11,000
Oxford	Memorial Library	Lillian J. Emerson	7,455
Oyster Bay	Free Library	Luie P. Sammis	7,690
Palmyra	Kings Daughters Free Library	Mary S. Aldrich	5,378
Patchogue	Public Library	Mrs. Alma D. Custead	7,100
Peekskill	Field Library	Julia A. Sprague	11,351
Penn Yan	Public Library	Henrietta H. Kimball	9,668
Plattsburg	do	Ernest S. Hall	17,221
Port Henry	Sherman Free Library	Anna L. Walton	9,112
Port Jervis	Free Library	Margaret B. Marsh	21,171
Potsdam	Public Library and Reading Room.	Mrs. Sadie A. Bixby	7,975
Poughkeepsie	Adriance Memorial Library	John C. Sickley	57,045
Rensselaer	Bath-on-Hudson Public Library.	Alice Ashton	3,675
Rochester	Public Library	William F. Yust	78,500
Do	Reynolds Library	Anne R. Collins	82,307
Rockville Center	Public Library	Dorothy M. Conner and Mrs. A. H. Decker, acting.	8,882
Rome	Jervis Library Association	Eugenie Stevens	18,574
Rye	Free Reading Room	Luella Otis Beaman	7,349
Sag Harbor	John Jermain Memorial Library.	Mrs. Olive P. Young	12,016
Salem	Bancroft Public Library	Frances F. Leighton	12,000
Saranac Lake	Free Library	Miss H. B. Wicker	7,190
Saugerties	Public Library	Alida A. MacAdam	10,150

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
NEW YORK—continued.			
Schenectady	Public Library	Henry Glen	43,224
Seneca Falls	Mynderse Library	Ellen F. Wickes	4,922
Shelter Island	Public Library	Mrs. M. H. Conklin	6,892
Sherburne	do	Adelaide E. Harrington	7,622
Sherman	Minerva Free Library	Florence E. Hawley	6,670
Sidney	Public Library	Bessie Talcott	7,520
Skaneateles	Library Association	Lydia H. Cobane	16,010
Solvay	Public Library	Cornelia Mertens	8,000
Southampton	Rogers Memorial Library	Julia W. Foster	12,517
Springville	Public Library	Lucy A. Bensley	9,945
Syracuse	do	Paul M. Paine	129,999
Tarrytown	Young Men's Lyceum Library	Flora C. Millard	13,954
Tonawanda	Public Library	Mrs. Ada M. Rork	8,433
Troy	do	Mary L. Davis	51,478
Utica	do	Caroline M. Underhill	93,899
Walden	Josephine-Louise Public Library	Ethel S. Leeming	2,920
Walton	W. B. Ogden Free Library	Mrs. Flora Bassett	6,000
Warrensburg	Richards Library	Mary S. Crandall	4,500
Warsaw	Public Library	Helen M. Cameron	7,950
Waterloo	Library and Historical Society	Lula M. Clark	7,985
Watertown	Roswell P. Flower Memorial Library.	Samuel A. Hayt	35,000
Wellsville	David A. Howe Public Library	Fannie E. Crittenden	12,875
Westfield	Patterson Library	Sarah H. Ames	19,748
White Plains	Public Library	Clara F. Hopper	23,100
Wyoming	Free Library	Vivian F. Arnold	6,980
Yonkers	Public Library	Helen M. Blodgett	45,000
NORTH CAROLINA.			
Asheville	Pack Memorial Library	Ann Talbot Erwin	14,147
Charlotte	Carnegie Library	Anne Pierce	9,345
Durham	Public Library	Mrs. A. F. Griggs	9,000
Gastonia	do	Lottie E. Blake	2,500
Greensboro	do	Bettie D. Caldwell	15,000
Ledger	Good Will Free Library	A. W. Willis	2,000
Raleigh	Olivia Raney Library	Mrs. J. S. Atkinson	15,475
Do	State Library	Carrie L. Broughton	46,000
Wilmington	Public Library	Alice Le Grand	8,809
Winston-Salem	Carnegie Public Library	Pamela Bynum	9,595
NORTH DAKOTA.			
Bismarck	State Law Library	J. H. Newton	20,000
Devils Lake	Carnegie Library	Marie E. O'Brien	4,879
Dickinson	Public Library	Zenka I. Trinka	5,192
Fargo	do	Winnie Bucklin	13,030
Grand Forks	do	Lillian E. Cook	8,345
Jamestown	do	Alice M. Paddock	8,313
Minot	Free Public Library	Margaret Greene	6,646
OHIO.			
Akron	Public Library	Mary P. Edgerton	32,261
Alliance	Carnegie Free Library	Dorothea Doane	11,150
Ashtabula	Public Library	Ethel J. MacDowell	10,250
Bellefontaine	Free Public Library	Laura O. Morgan	8,000
Bellevue	Carnegie-Stahl Public Library	Emma C. Sutter	12,000
Bryan	Free Public Library	Alice M. Walt	6,000
Bucyrus	Public Library	Grace J. Fuller	8,700
Cadiz	do	Mrs. Carolyn S. McCann	8,000
Cambridge	do	Martha G. Robins	8,000
Canton	Public Library Association	Mary P. Martin	27,178
Carey	Dorcas Carey Public Library	Margie Sutphen	5,890
Chillicothe	Public Library	Burton E. Stevenson	30,000
Cincinnati	do	N. D. C. Hodges	540,335
Circleville	do	Mary E. Wilder	15,000
Cleveland	do		600,000
Clyde	do		
Columbus	do	Chella Hutchinson	7,000
Do	State Library	John J. Pugh	107,000
Conneaut	Carnegie Public Library	J. H. Newman	190,000
Coshocton	Public Library	Marie T. Brown	12,800
Cuyahoga Falls	Taylor Memorial Library	Eleanor Olney	11,058
Dayton	Public Library	Mary L. Graham	6,000
Defiance	do	Electra C. Doren	105,000
Delaware	City Library	Jewel Fouke	11,172
East Liverpool	Carnegie Public Library	Mrs. Margaret Lahr	11,385
Elyria	Elyria Library	Mary H. Hall	11,583
Findlay	Public Library	Grace M. Petersen	28,971
		Mary B. Morrison	13,868

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
OHIO—continued.			
Fremont	Birchard Library	Elizabeth M. Richards	13,500
Galion	Public Library	Estella B. Coyle	6,508
Gallipolis	do	Mrs. Addie A. Vanden	7,942
Geneva	Free Public Library	Mrs. Viola A. Wheaton	7,000
Germantown	Public Library	Mrs. Adelaide Taylor	6,474
Greenville	Carnegie Library	Minnie J. Routzong	15,000
Hamilton	Lane Public Library	Mrs. Hattie S. James	15,000
Hillsboro	Public Library	Frances H. Detwiler	10,000
Ironton	Briggs Library	Nellie John Shaw	8,000
Lakewood	Public Library	Roena A. Ingham	17,500
Lancaster	do	Ella Hite	11,532
Lebanon	do	Jennie Unglesby	8,963
Lima	do	Martha Gamble	14,000
Lisbon	Lepper Library	Mrs. M. P. Springer	4,700
London	Public Library	Hattie D. Smith	7,637
Lorain	do	Elizabeth K. Steele	11,450
Mansfield	do	Helen J. Fox	21,782
Marietta	do	Willia D. Cotton	17,000
Marion	do	Helen L. Kramer	10,558
Massillon	McClymonds Public Library	Clara Miller	21,402
Medina	Franklin Sylvester Library	Evangeline Johnson	10,044
Mount Vernon	Public Library	Loma P. Arndt	8,575
New Straitsville	do	Mrs. Maria E. Martin	6,700
Newark	do	Mrs. Neva E. Rees	13,257
Niles	do	Ida E. Sloan	6,327
Painesville	do	Margaret Kilbourne	13,750
Perrysburg	Way Public Library	Eleanor D. Moderwell	11,500
Portsmouth	Free Public Library	Nana A. Newton	23,000
Salem	Public Library	Mrs. Helen S. Carey	11,732
Sandusky	Library Association	Edna A. Holzaepfel	24,972
Shelby	Marvin Memorial Library	Ella Askew	5,500
Sidney	Public Library	Emma Graham	13,100
Springfield	Warder Public Library	Alice Burrowes	34,700
Tiffin	Public Library	Jessie D. Hershiser	11,790
Toledo	do	Herbert S. Hirshberg	125,000
Urbana	do	Mrs. Harriet C. Milne	11,000
Van Wert	Brumback Library	Harriet C. Long	25,966
Warren	Public Library	Cornelia G. Smith	22,355
Washington Courthouse	Carnegie Public Library	Elizabeth Johnson	7,000
Wellington	Public Library	Edith E. Robinson	11,000
Wilmington	Carnegie Library	Minnie Farren	6,500
Wooster	Public Library	Myrtle M. Allen	10,800
Xenia	Greene County Library	Etta G. McElwain	17,387
Youngstown	Reuben McMillan Free Library	Joseph L. Wheeler	76,473
Zanesville	John McIntire Public Library	Mary E. Elder	29,109
OKLAHOMA.			
Ardmore	Carnegie Library	Myrtle Jones	6,000
Atoka	Pioneer Club Library	Mrs. A. Telle	3,000
Bartlesville	Carnegie Library	Myrtle Weatherholt	3,500
Chickasha	Carnegie Public Library	Fannie Whitaker	7,500
Cordell	Public Library	Nell Rouer	3,000
Elk City	Carnegie Library	Mrs. J. G. Keen	2,902
El Reno	Carnegie Public Library	Lorna J. Teuscher	6,000
Enid	do	Mrs. Cora C. Porter	10,087
Guthrie	Carnegie Library	Margaret Armantrout	13,000
Hobart	do	Mrs. J. R. Dale	4,250
Lawton	Public Library	Ann Dunbar	4,460
McAlester	do	Mrs. Phoebe E. Hayden	5,500
Muskogee	do	Sarah A. Noble	14,230
Oklahoma	Carnegie Public Library	Mary E. Hays	25,000
Do	State Library	E. G. Spilman	75,000
Okmulgee	City Library	Mrs. Izora Ground	4,569
Perry	Carnegie Library	Emilie Le Bris	3,000
Ponca City	do	Leah Buchheimer	2,540
Sapulpa	Public Library	Opal W. Craine	3,000
Shawnee	Carnegie Public Library	Mrs. T. S. Funk	12,000
Tulsa	Public Library	Alma R. McGlenn	9,000
Wagoner	Carnegie Library	Leona Bateman	3,247
Woodward	Carnegie Public Library	Mrs. Harry B. Hall	2,000
OREGON.			
Ashland	Free Public Library	Blanche E. Hicks	7,411
Astoria	Public Library	Katherine C. Barker	7,800
Baker	do	Lula M. Smith	8,094
Hood River	County Library	Nell Unger	6,413
La Grande	Public Library	Lucia Haley	3,600

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
OREGON—continued.			
Medford	Public Library	Elizabeth Robinson	6,847
Pendleton	Umatilla County Library	Sabra L. Nason	14,000
Portland	Library Association	Mary F. Isom	276,447
Salem	Public Library	Flora M. Case	13,369
Do	State Library	Cornelia Marvin	135,000
The Dalles	Wasco County Library	Corinne A. Metz	14,274
PENNSYLVANIA.			
Alexandria	Memorial Public Library	E. P. Walker	4,686
Allentown	Free Library	Isabel McC. Turner	15,200
Ardmore	do	M. Rebecca Lingenfelter	8,000
Athens	Spalding Memorial Library	Helen Thurston	7,125
Beaver Falls	Carnegie Free Library	Elsie Rayle	14,000
Ben Avon	Public Library	Mary D. Parmely	2,700
Berwyn	Free Library	Ethel M. Johnson	6,000
Bethlehem	Free Library of the Bethlehems	Elizabeth D. Burrows	15,000
Bloomsburg	Public Library		8,253
Braddock	Carnegie Free Library	George H. Lamb	70,000
Bradford	Carnegie Public Library	Susan L. Sherman	22,070
Bristol	Free Library	Mary P. Rogers	4,900
Butler	do	Clara B. McJunkin	5,050
Canton	Green Free Library	Sadie L. Parsons	8,169
Carbondale	Free Public Library	Helen Hathaway	4,000
Carlisle	J. Herman Bosler Memorial Library	William Homer Ames	8,137
Carnegie	Andrew Carnegie Free Library	Emma L. Rood	18,000
Chester	Free Library	Dorothy M. Cochran	11,000
Do	West End Free Library	Murtle C. Lehman	6,783
Conneautville	James A. Stone Memorial Library	Florence Moulthrop	3,500
Connellsville	Carnegie Free Library	Margaret M. Whiteman	15,000
Conshohocken	Free Library	Mrs. S. M. Aken	5,587
Corry	Public Library	Mrs. Emma A. Dean	7,000
Coudersport	do	Frances I. Niles	7,300
Danville	Thomas Beaver Library	Janet Bird	16,385
Darby	Free Library	Helen M. Serrill	7,000
Duquesne	Carnegie Free Library	Charles E. Wright	27,000
Easton	Public Library	Henry F. Marx	31,956
Ellwood City	do	Mrs. Katherine M. Charles	4,119
Erie	do	Mrs. Jean A. Hard	64,000
Fallsington	Fallsington Library	Mary E. Watson	10,000
Foxburg	Free Library	America S. Panton	5,097
Franklin	Library Association	Mary H. Clarke	10,880
Germantown	Friends Free Library	Hannah M. Jones	31,703
Hanover	Public Library	Olive M. Ryder	15,230
Harrisburg	do	Alice R. Eaton	21,000
Do	State Library	Thomas L. Montgomery	186,000
Hatboro	Union Library	Mrs. Charles E. Yerkes	16,000
Hazleton	Public Library	Alice Willigerod	20,000
Homestead	Carnegie Library	W. F. Stevens	46,374
Honesdale	Public Library	R. T. Davies	5,000
Indiana	Free Library	Lillian D. Thompson	3,319
Jenkintown	Abington Library Society	Florence M. Ridpath	12,500
Johnstown	Cambria Free Library	L. Helen Berkey	29,000
Kane	Public Library	M. Leona Peterson	7,500
Kennett Square	Bayard Taylor Memorial Library	Alice W. Swayne	5,200
Lancaster	A. Herr Smith Memorial Library	Helen E. Myers	16,034
Langhorne	Langhorne Library	Ethel G. Praul	6,800
Lansdowne	Free Public Library	M. Sophronia Beatty	5,500
Lebanon	Public Library	Irene A. Klick	7,443
Lewisburg	Himmelreicht Memorial Library	Emily Clingan	5,000
Lock Haven	Annie Halenbake Ross Library	Florence Hulings	10,000
McKeesport	Carnegie Free Library	Marian Price	14,000
Mauch Chunk	Dimmick Memorial Library	Inez Crandle	15,675
Meadville	Free Public Library	Charlotta M. Campbell	9,000
Media	Free Library	Karlena H. Kruse	7,815
Milford	Homestead Free Library	Mrs. Linda K. Wallace	3,000
Monongahela	Carnegie Free Library	Mrs. S. E. Nicholson	3,743
Montrose	Susquehanna County Free Library	F. A. Alden	10,000
Mount Holly Springs	Amelia S. Given Free Library	Stella Goodyear	5,800
Munhall	Carnegie Library of Homestead	W. F. Stevens	60,000
New Castle	Free Public Library	Alice M. Sterling	10,061
Newton	Newton Library Co	W. E. Martindell	9,000
Norristown	William McCann Library	Helen A. Bomberger	8,205
North East	McCord Memorial Library	Rebecca M. Leete	5,500
Oakmont	Public Library	Blanche McIlvaine	6,378
Oil City	Carnegie Public Library	Emily S. Glezen	15,515

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
PENNSYLVANIA—contd.			
Philadelphia	Free Library	John Ashurst	534,152
Phoenixville	Public Library of the Phoenixville School District.	Ida M. Wagoner	10,724
Pittsburgh	Carnegie Free Library of Allegheny.	Edward E. Eggers	130,000
Do	Carnegie Library of Pittsburgh	John H. Leete	434,469
Pittston	Free Library	Antoinette L. King	5,500
Pottstown	Public Library		4,727
Pottsville	do	Edith Patterson	11,772
Reading	do	Edward A. Howell	45,000
Ridley Park	Ridley Park Library	Alma L. Deppisch	6,170
Royersford	Free Public Library	Ethel Buzby	5,250
Saltsburg	Free Library	E. M. Pearce	2,003
Scottdale	Free Public Library	Edna L. Krouse	12,825
Scranton	Public Library	Henry J. Carr	83,000
Sewickley	do	Harriet D. McCarty	15,475
Spring City	do	Elizabeth Rogers	3,416
Steelton	do	L. E. McGinnes	4,000
Titusville	Benson Memorial Library	Viola G. Hively	11,890
Towanda	Public Library	Bessie Whitney	9,258
Troy	do	Jane Parsons	3,614
Tunkhannock	Free Public Library	Mary Hoadley	3,061
Vandergrift	do	Jennie McKenzie	3,765
Wallingford	Helen Kate Furness Free Library.	Bertha E. Cantner	3,200
Warren	Library Association	Mary C. Weiss	32,000
Washington	Citizens' Free Library	Janet M. Clark	17,862
Wellsboro	Green Free Library	Mabel Deans, acting	14,723
West Chester	Library Association	Sarah P. Bedford	13,889
Wilkes-Barre	Osterhout Free Library	Myra Poland	50,622
Williamsport	James V. Brown Library	O. R. Howard Thomson	27,500
Wyomissing	Public Library	Alice E. Roeder	2,250
Yardley	Yardleyville Library	Dorothy Wightman	5,000
York	Public Library	A. Wanner	15,090
RHODE ISLAND.			
Anthony	Free Library	Myra S. Anthony	1,500
Apponaug	do	Maude Wathey	7,470
Ashaway	do	L. R. Crandall	7,565
Auburn	Public Library	Clara L. Foster	8,000
Barrington	do	Mrs. Erma S. Bradford	13,517
Bristol	Rogers Free Library	George U. Arnold	20,870
Carolina	Public Library	Friend W. Brooks	5,000
Centerdale	Union Library	Frank C. Angell	6,247
Central Falls	Free Public Library	Mrs. Edith H. Simmons	18,000
Crompton	Free Library	Bertha M. Brayton	7,650
East Greenwich	do	Mrs. Ella D. Chapman	10,295
East Providence	Watchemoket Free Public Library.	Mrs. Jennie E. Briggs	10,050
Edgewood	Free Public Library	Alice W. Morse	7,558
Greenville	Public Library	Cora L. Burlingame	5,871
Hope Valley	Langworthy Public Library	Laura S. Yeaw	7,756
Jamestown	Philomenian Library	Mrs. L. C. Hammond	8,794
Kingston	Free Library	Isabel Eddy	9,600
Lakewood	do	Frank B. Wight	6,949
Newport	People's Library	Luella K. Leavitt	33,454
Do	Redwood Library and Athenæum.	George L. Hinckley	65,839
Oak Lawn	Free Public Library	Ernest L. Sperry	7,720
Pawtucket	Deborah Cook Sayles Public Library.	William D. Goddard	38,683
Peace Dale	Narragansett Library Association.	Alice E. Potter	15,950
Phenix	Pawtuxet Valley Free Library	Velna I. Phillips	10,501
Providence	Public Library	William E. Foster	177,769
Do	State Library	Herbert O. Brigham	44,339
Do. (Cranston St.)	Arlington Public Library	Mary F. Walker	6,048
Do. (Olneyville Station).	Olneyville Free Library	Mrs. Harriet N. Richardson	11,355
Riverside	Public Library	Mary W. Blodget	6,279
Rumford	East Providence Centre Free Library.	Bessie D. Paul	6,180
Shawomet	League Free Library	Mrs. Mary A. S. Lane	6,144
Tiverton	Whitridge Hall Free Library	Mrs. Mary J. S. Stimson	6,805
Warren	George Hail Free Library	Annie L. V. Adams	9,067
Westerly	Public Library	Joseph L. Peacock	46,015
Woonsocket	Harris Institute Library	Ama H. Ward	22,243

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
SOUTH CAROLINA.			
Anderson	Public Library	Mrs. G. H. Geiger	5,600
Charleston	Library Society	Ellen M. Fitz Simons	47,000
Columbia	State Library	Mrs. Virginia G. Moody	50,000
Gaffney	Carnegie Free Library	Mrs. Pratt Pierson	12,946
Greenville	Mebiett Free Library	Mrs. Rebecca Deal	8,189
Marion	Public Library	Louise McI. McMaster	6,000
Spartanburg	Kennedy Free Library	Mary M. Baugham	9,000
Union	Carnegie Free Library	Miss Neely Sartor	4,169
SOUTH DAKOTA.			
Aberdeen	Alexander Mitchell Library	Mrs. A. H. Drum	9,402
Deadwood	Public Library	Mrs. Elizabeth S. Phelps	5,607
Lead	Hearst Free Library	Martha E. Livingston	14,000
Mitchell	Carnegie Library	Alma Thomas, Alice Strong	9,077
Pierre	do	Mrs. Maud Russell Carter	6,340
Do	State Library	Doane Robinson	45,000
Redfield	Carnegie Library	Myrtle Francis	4,572
Sioux Falls	Carnegie Free Library	Alberta A. Caille	17,189
Vermilion	Carnegie Library	Bernice Swezey	3,337
Yankton	do	Jessie Bartholomew	4,500
TENNESSEE.			
Chattanooga	Public Library	Margaret S. Dunlap	45,794
Harriman	do	Mrs. R. P. Eaton	6,000
Knoxville	Lawson McGhee Library	Mary U. Rothrock	18,202
Memphis	Cossitt Library	Charles D. Johnston	143,783
Nashville	Carnegie Library	Margaret McE. Kercheval	81,000
Do	State Library	Mary Skeffington	150,000
Rugby	Hughes Free Public Library	Helen H. Turner	7,000
TEXAS.			
Abilene	Carnegie Public Library	Emma L. Taylor	5,800
Austin	State Library	Elizabeth H. West	37,000
Belton	Carnegie Public Library	Emma Lee	3,505
Brenham	Public Library	Annette Ray	4,863
Brownwood	Carnegie Library	Pink U. Noel	4,523
Bryan	Carnegie Public Library	Miss Willie Rogers	5,000
Cleburne	do	Rebecca Royall	8,834
Coleman	Public Library	Mrs. Cole Lewis	3,000
Corsicana	do	Mrs. Mattie C. Houston	12,000
Dallas	do	Betsy T. Wiley	60,000
Denison	XXI Club Library	Mrs. W. C. King	2,500
El Paso	Public Library	Mrs. Maud D. Sullivan	12,826
Fort Worth	Carnegie Public Library	Mrs. Charles Scheuber	35,321
Gainesville	Public Library	Lillian Gunter	4,636
Galveston	Rosenberg Library	Frank C. Patten	63,500
Greenville	Carnegie Library	Ida Pennington	8,000
Houston	Lyceum and Carnegie Library	Julia Ideson	50,000
Lockhart	Dr. Eugene Clark Library	Mae Camp	5,000
Memphis	Carnegie Library	Mrs. W. C. Milam	2,025
Palestine	do	Mrs. Betty Reagan-Ferguson	3,500
Port Arthur	Memorial Library	Mrs. Edward S. Carter	11,000
San Antonio	Carnegie Library		49,004
Sherman	Public Library	Mrs. Nora K. Weems	5,300
Stamford	Carnegie Library	Mrs. J. D. Green	2,376
Temple	do	Mrs. W. S. Bands	6,300
Terrell	Carnegie Public Library	Mrs. Preston Cobb	5,555
Tyler	Public Library	Edith A. Phelps	10,150
Vernon	Free Library	Flora E. Lowrey	4,000
Waco	Public Library	Pauline McCauley	24,413
Waxahachie	N. P. Sims Library	Irene D. Gallaway	7,500
Wharton	Public Library	Mrs. L. B. Autla	3,500
Winnsboro	Carnegie Library	Mrs. T. W. Bozeman	2,500
UTAH.			
Cedar City	Public Library	Mrs. E. Crane Watson	3,330
Eureka	do	Mrs. La V. L. Tomlinson	3,961
Garland	do	Lillian Astle	2,285
Logan	do	Margaret Wilkinson	2,022
Manti	do	Clara Farnsworth	2,855
Moab	do	Edna Bankhead	2,706
Murray	do	Vivian Wallace	2,978
Ogden	Carnegie Free Library	Grace W. Harris	21,456
Park City	Public Library		10,000
Payson	do	Mrs. Findlayson	3,150

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
UTAH—continued.			
Provo	Public Library	Marie Hedquist	8,512
Richfield	do	Mrs. Olena Christiansen	2,485
Richmond	do	Lulu Burnham	2,792
Salt Lake City	do	Joanna H. Sprague	85,848
Do	State Library	H. W. Griffith	17,725
Springville	Public Library	Louise Rowland	2,000
Tooele	do	Effie Marsden	2,615
VERMONT.			
Barre	Aldrich Public Library	Ruth Parker	12,800
Bellows Falls	Rockingham Free Public Library.	Mrs. Nellie M. Plantier	12,500
Bennington	Free Library	Mrs. Mary A. P. Partenheimer	8,740
Brandon	Free Public Library	Mrs. Ida J. S. Kingsley	7,475
Brattleboro	Free Library	Edith I. Wright	20,944
Burlington	Fletcher Free Library	George D. Smith	40,000
Cavendish	Fletcher Town Library	E. G. White	8,000
Chelsea	Public Library	Mary J. George	9,925
Danby	Griffith Memorial Library	Vera H. Griffith	9,042
Derby Line	Haskell Free Library	O. M. Carpenter	8,926
Fair Haven	Public Library	Mrs. Margaret Colville	6,000
Lyndonville	Cobleigh Public Library	Elizabeth C. Hills	5,665
Manchester	Mark Skinner Library	Eleanor Eggleston	19,694
Middlebury	Public Library	Susan E. Archibald	9,797
Montpelier	Kellogg-Hubbard Library	Evelyn S. Lease	31,404
Do	State Library	George W. Wing	70,000
Newbury	Tenney Memorial Library	Frances M. Atkinson	8,190
Newport	Goodrich Memorial Library	Lizzie M. Sargent	10,327
Pittsford	Maclure Library	Mary R. Allen	8,500
Poultney	Public Library	Lelia M. Vaughan	4,500
Proctor	Free Library	Mary K. Norton	10,000
Randolph	Kimball Public Library	Desier C. Moulton	8,450
Rutland	Free Library	Lucy D. Cheney	22,472
Do	H. H. Baxter Memorial Library	Mrs. A. P. Riker	14,000
St. Albans	Free Library	Bertha C. Jennison	9,000
St. Johnsbury	St. Johnsbury Atheneum	Edward T. Fairbanks	21,000
Springfield	Town Library	Elizabeth McCarthy	9,330
Strafford	Harris Library	Helen D. Moore	7,000
Vergennes	Bixby Memorial Free Library	Edith J. Chamberlin	10,000
Waterbury	Public Library	Bertha E. Joslyn	6,000
Windsor	Library Association	Jennie C. Penniman	17,000
Woodstock	Norman Williams Public Library.	Alice L. Eaton	21,000
VIRGINIA.			
Alexandria	Alexandria Library	Alice J. Green	9,000
Farmville	Public Library	Martha K. Blanton	2,500
Fredericksburg	Wallace Library	Sally N. Gravatt	5,500
Lynchburg	Jones Memorial Library	E. K. Peck, acting	5,000
Newport News	Public Library	Gwendolyn Evans	9,000
Norfolk	do	Mary D. Pretlow	29,292
Orange	Orange Library	Leslie McIntosh	2,000
Portsmouth	Public Library	Esther M. Wilson	9,500
Richmond	State Library	H. R. McIlwaine	115,000
Waynesboro	Public Library	Lillian Fox	2,608
Winchester	Handley Library	C. Vernon Eddy	9,000
WASHINGTON.			
Bellingham	Public Library	Mrs. K. M. Ryan	30,000
Everett	do	Elizabeth R. Topping	12,589
Hoquiam	do	Agnes V. Johnson	6,259
Olympia	State Library	J. M. Kitt	34,000
Ritzville	Public Library	Mrs. Claire L. Miller	6,000
Seattle	do	Judson T. Jennings	296,132
Spokane	do	George W. Fuller	81,492
Tacoma	do	John B. Kaiser	85,451
Walla Walla	do	Ellen G. Smith	15,000
Yakima	do	Eleanor Stephens	9,061
WEST VIRGINIA.			
Bluefield	Public Library	Gertrude Oliver	5,246
Charleston	Department Archives and History.	Wilson M. Foulk	78,023
Do	Public Library	Mrs. Elizabeth von Schlectendahl.	13,850
Do	State Law Library	L. O. Wilson	19,000

XXX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
WEST VIRGINIA—contd.			
Clarksburg	Public Library	Miss S. Scollay Page	2,200
Fairmont	do	Pauline Shriver	3,600
Hinton	Carnegie Library	H. F. Griffey	3,967
Huntington	Public Library	Miss Lewis Harvey	19,276
Parkersburg	Carnegie Library	Anna E. Taylor	14,737
Sistersville	Public Library	Bertha E. Chadderdon	4,603
Wheeling	do	Etta M. Roberts	38,725
WISCONSIN.			
Antigo	Free Public Library	Grace W. Estes	11,358
Appleton	do	Agnes L. Dwight	14,285
Ashland	Vaughn Public Library	Cécile M. Fennelly	8,362
Baraboo	Public Library	Kate M. Potter	10,111
Beaver Dam	Williams Free Library	Hattie A. Doolittle	10,719
Beloit	Public Library	Nellie B. McAlpine	17,614
Berlin	do	Margaret Biggert	5,986
Chippewa Falls	do	Marion E. Bryant	9,990
Columbus	do	Nellie A. Loomis	5,885
Darlington	do	Hattie B. Greene	6,000
Delavan	Aram Public Library	Leila A. Janes	6,168
De Pere	Public Library	Helen S. Mathews	7,500
Eau Claire	do	Laura M. Olsen	25,918
Evansville	Eager Free Public Library	Mae G. Phillips	6,896
Fond du Lac	Public Library	Callie Wieder	23,461
Fort Atkinson	Dwight Foster Public Library	Mrs. Winifred L. Davis	5,000
Grand Rapids	T. B. Scott Free Library	Edith L. Rablin	10,100
Green Bay	Kellogg Public Library	Deborah B. Martin	35,000
Hayward	Carnegie Free Library	Harriette H. Withrow	4,800
Hudson	Public Library	Lucille C. Menkey	5,880
Janesville	do	Mary A. Egan	19,864
Kaukauna	Free Public Library	Lillian E. Bell	5,918
Kenosha	Gilbert M. Simmons Library	Cora M. Frantz	37,000
Kilbourn	Public Library	Lillian F. Ramsay	5,587
La Crosse	do	Lilly M. E. Borresen	26,211
Lake Geneva	do	Gertrude J. Noyes	6,500
Madison	Free Library	Mary A. Smith	39,100
Do	State Library	Gilson G. Glasier	61,000
Manitowoc	Public Library	Martha E. Pond	15,436
Marinette	Stephenson Public Library	Gladys May Andrews	16,469
Marshfield	Free Library	Caroline C. Shaw	8,782
Menasha	Elisha D. Smith Library	Lucy L. Pleasants	12,184
Menomonie	Tainter Memorial Free Library	Mrs. Essie Nickerson	13,649
Merrill	T. B. Scott Library	Elizabeth Burke	10,000
Milwaukee	Public Library	Charles E. McLenegan	350,000
Mineral Point	do	Margaret A. Crawford	6,012
Monroe	Arabut Ludlow Memorial Library.	Katherine Smock	10,321
Neenah	Public Library	Ida B. Kellogg	13,507
Oconomowoc	do	Anna R. Jones	6,106
Oconto	Farnsworth Public Library	Malvina G. Clausen	8,589
Oshkosh	Public Library	Edith K. Van Eman	34,793
Portage	Free Public Library	Mary E. Porter	12,523
Racine	Public Library	Frances A. Hannum	34,206
Rhinelander	Free Public Library	Jessie W. Bingham	6,964
Rice Lake	Public Library	Odile M. Demers	5,500
Ripon	do	Blanche Thompson	6,600
St. Francis	Salzmann Library	Rev. Dr. A. C. Breig	15,000
Sheboygan	Public Library	Bertha Marx	16,493
Sparta	Free Library	Jennie Scouten	9,398
Stanley	Public Library	Edith Rechcygl	4,171
Stevens Point	do	Mary Dunegan	6,906
Superior	do	Blanch L. Unterkircher	37,359
Washburn	do	Mrs. May M. Greenwood	5,849
Watertown	Free Public Library	Vivian G. Little	8,864
Waukesha	Public Library	Clara E. Shadall	7,591
Waupun	do	Clara L. Lindsley	7,988
Wausau	do	Cora I. Lansing	11,782
Wauwatosa	do	Grace E. Loveland	7,205
West Allis	do	Winnefred Bailey	4,000
Whitewater	do	Ella A. Hamilton	8,896
WYOMING.			
Cheyenne	Carnegie Public Library	Mrs. Luella G. Moore	17,000
Do	State Library	Agnes R. Wright	40,000
Evanston	Uinta County Public Library	Besse N. Blackham	7,959
Laramie	Carnegie Public Library	William S. Ingham	12,500

XXXI.—Directors of Library Schools.

Location.	Name of institution.	Director.
Los Angeles, Cal.	Public Library Training School	Marion L. Horton, acting principal.
Riverside, Cal.	Riverside Library Service School	Joseph F. Daniels, director.
Sacramento, Cal.	California State Library School	Beulah Mumm, in charge.
Atlanta, Ga.	Library Training School (Carnegie Library)	Tommie Dora Barker, director.
Urbana, Ill.	University of Illinois Library School	Phineas L. Windsor, director.
Boston, Mass.	Simmons College School of Library Science	June R. Donnelly, director.
St. Louis, Mo.	St. Louis Library School	Arthur E. Bostwick, director.
Albany, N. Y.	New York State Library School	James I. Wyer, director.
Brooklyn, N. Y.	Pratt Institute School of Library Science	Edward F. Stevens, director.
New York, N. Y.	Library School of the New York Public Library	Ernest J. Reece, principal.
Syracuse, N. Y.	Syracuse University Library School	Earl E. Sperry, director.
Cleveland, Ohio.	Western Reserve Library School (Western Reserve University).	Alice S. Tyler, director.
Pittsburgh, Pa.	Carnegie Library School	John H. Leete, director.
Seattle, Wash.	University of Washington Library School	William E. Henry, director.
Madison, Wis.	Wisconsin Library School (Wisconsin Free Library Commission and the University of Wisconsin).	Matthew S. Dudgeon, director.

XXXII.—Directors of Schools of Philanthropy.

Location.	Name of institution.	Director.
Chicago, Ill.	Chicago School of Civics and Philanthropy	Graham Taylor, president.
Boston, Mass.	School for Social Workers	
St. Louis, Mo.	St. Louis School of Sociology and Economy	
New York, N. Y.	New York School of Philanthropy	Porter R. Lee.
Philadelphia, Pa.	Pennsylvania School for Social Service	Bernard J. Newman.
Houston, Tex.	Texas School of Civics and Philanthropy	Stuart A. Queen.
Richmond, Va.	School of Social Work and Public Health	Henry H. Hibbs, jr.

XXXIII.—Educational Boards and Foundations.

Name of board.	President.	Secretary.	Meeting.
Anna T. Jeanes Foundation.	J. H. Dillard, Charlottesville, Va.	John T. Emlen, 4th and Chestnut Sts., Philadelphia, Pa.	New York, N. Y., 1918.
Baron de Hirsch Fund	E. S. Benjamin, 1019 Madison Ave., New York, N. Y.	Max J. Kohler, 52 William St., New York, N. Y.	New York, N. Y., last Sunday in January.
Carnegie Corporation of New York.	Andrew Carnegie, 2 East 91st St., New York, N. Y.	James Bertram, 576 5th Ave., New York, N. Y.	New York, N. Y.
Carnegie Foundation for the Advancement of Teaching.	H. S. Pritchett, 576 5th Ave., New York, N. Y.	Clyde Furst, 576 5th Ave., New York, N. Y.	New York, N. Y.
General Education Board.	Wallace Buttrick, 61 Broadway, New York, N. Y.	Abraham Flexner, 61 Broadway, New York, N. Y.	New York, N. Y., December 5, 1918.
John F. Slater Fund	James H. Dillard, Charlottesville, Va.	Miss G. C. Mann, Charlottesville, Va.	New York, N. Y., December, 1918.
Kahn Foundation for the Foreign Travel of American Teachers.	Nicholas Murray Butler, 116th St. and Broadway, New York, N. Y.	Frank D. Fackenthal, 116th St. and Broadway, New York, N. Y.	
Phelps-Stokes Fund	I. N. Phelps-Stokes, chairman, 100 William St., New York, N. Y.	Anson Phelps-Stokes, Yale University, New Haven, Conn.	New York, N. Y., November, 1918.
Rockefeller Foundation	George E. Vincent, New York, N. Y.	Jerome D. Greene, 61 Broadway, New York, N. Y.	New York, N. Y., December 4, 1918.
Russell Sage Foundation	Mrs. Russell Sage, 604 5th Ave., New York, N. Y.	John M. Glenn, 130 East 22d St., New York, N. Y.	Monthly, October to May, inclusive.

XXXIV.—Church Educational Boards and Societies.

Name of board.	President.	Secretary.
Council of Church Boards of Education in the United States of America.	James E. Clarke, Nashville, Tenn.	Robert L. Kelly, 19 South La Salle St., Chicago, Ill.
American Baptist Education Society	Clark W. Chamberlain, Granville, Ohio.	Frank W. Padelford, 706 Ford Bldg., Boston, Mass.
American Christian Convention, Department of Education.	W. G. Sargent, Providence, R. I.	Hugh A. Smith, Warren, Ind.
American Unitarian Association, Committee on Education.	.....	.....
Congregational Education Society	C. F. Swift, Denver, Colo	Frank M. Sheldon, 14 Beacon St., Boston, Mass.
Disciples of Christ, Board of Education	R. H. Crossfield, Lexington, Ky.	G. D. Edwards, Columbia, Mo.
Evangelical Lutheran Church, Board of Education.	A. J. Turkle, 11 Riverview Ave., Pittsburgh, Pa.	E. E. Blint, Leechburg, Pa.
Mennonites of North America, General Conference, Board of Education.	H. H. Ewert, Gretna, Manitoba.	J. H. Langenwalter, Bluffton, Ohio.
Methodist Episcopal Church, Board of Education.	William F. McDowell, 1509 16th St. N. W., Washington, D. C.	E. S. Tipple, Drew Theological Seminary, Madison, N. J.
Methodist Episcopal Church, South, Board of Education.	W. B. Murrah, Memphis, Tenn.	Stonewall Anderson, 810 Broadway, Nashville, Tenn.
National Baptist Convention, Educational Board.	T. J. Searcy, 385 South Cynthia Place, Nashville, Tenn.	S. E. Griggs, Memphis, Tenn.
Northern Baptist Convention, Board of Education.	E. D. Burton, chairman, University of Chicago, Chicago, Ill.	Frank W. Padelford, 706 Ford Bldg., Boston, Mass.
Presbyterian Church in the United States of America, Board of Education.	Charles Wadsworth, jr., 5854 Overbrook Ave., Philadelphia, Pa.	
Presbyterian Church in the United States of America, College Board.	Edwin A. McAlpin, jr., Madison, N. J.	James E. Clarke, Nashville, Tenn.
Presbyterian Church in the United States (Southern), Executive Committee of Education	Wade Sheltman, Room 410, Urban Bldg., Louisville, Ky.	Henry H. Sweets, 122 South 4th Ave., Louisville, Ky.
Protestant Episcopal Church, General Board of Religious Education.	Daniel S. Tuttle, 74 Vandeventer Place, St. Louis, Mo.	William E. Gardner, 289 4th Ave., New York, N. Y.
Reformed Church in America, Board of Education.	Elias W. Thompson, 25 East 22d St., New York, N. Y.	John G. Gebhard, 25 East 22d St., New York, N. Y.
Society of Friends, 5-years' meeting, Board of Education.	David M. Edwards, Earlham College, Earlham, Ind.	J. Edwin Jay, Wilmington, Ohio.
Society of Friends, General Conference, Committee on Education.	Bird T. Baldwin, Swarthmore, Pa.	Bertha L. Broomell, 15th and Race Sts., Philadelphia, Pa.
United Evangelical Church, Board of Education.	Franklin Schlegel, 441 Chestnut St., Lancaster, Pa.	H. H. Thoren, 1546 Barry Ave., Chicago, Ill.
United Presbyterian Church, Board of Education.	David F. Matchett, 6133 Ellis Ave., Chicago, Ill.	Ralph D. Kyle, 1344 East 63d St., Chicago, Ill.

XXXV.—Superintendents of Catholic Parochial Schools.

[Archdioceses are indicated by an asterisk (*).]

Diocese or archdiocese.	Name and title of supervising officer.	Address.
Albany, N. Y.	Rev. Joseph A. Dunney, S. T. L., inspector of schools.	454 Western Ave., Albany, N. Y.
Baker City, Oreg.	Rev. Hugh J. Marshall, diocesan inspector of schools.	Klamath Falls, Oreg.
*Baltimore, Md.	Rev. Lawrence A. Brown, superintendent (Baltimore City).	Catonsville, Baltimore, Md.
*Boston, Mass.	Rev. Augustine F. Hickey, S. T. L., diocesan supervisor of schools.	75 Union Park St., Boston, Mass.
Brooklyn, N. Y.	Rev. Joseph V. S. McClancy, inspector of schools.	749 Linwood St., Brooklyn, N. Y.
Buffalo, N. Y.	Rev. Francis T. Kanaley, superintendent of parochial schools.	1974 Seneca St., Buffalo, N. Y.
Cleveland, Ohio.	Rev. William A. Kane, diocesan superintendent of parochial schools.	1007 Superior Ave., NE., Cleveland, Ohio.
Columbus, Ohio.	Rev. John P. Curran, superintendent of schools.	150 East First Ave., Columbus, Ohio.
Crookston, Minn.	Rev. John P. Funk, diocesan superintendent of schools.	Crookston, Minn.

XXXV.—Superintendents of Catholic Parochial Schools—Continued.

Diocese or archdiocese.	Name and title of supervising officer.	Address.
Erie, Pa.	Rev. John M. Gannon, D. D., D. C. L., superintendent of schools.	Meadville, Pa.
Fall River, Mass.	Rev. Francis J. Bradley, D. D., diocesan school visitor.	274 Second St., Fall River, Mass.
	Rev. L. Damase Robert, diocesan school visitor.	889 Pine St., Fall River, Mass.
Fargo, N. Dak.	Very Rev. John Baker, V. G., inspector of schools.	Valley City, N. Dak.
Fort Wayne, Ind.	Rev. A. E. Lafontaine, superintendent of schools.	1140 Clinton St., Fort Wayne, Ind.
Galveston, Tex.	Rev. J. B. O'Leary, diocesan director of schools.	Houston Heights, Tex.
Green Bay, Wis.	Rev. Peter J. Grosnick, diocesan superintendent of schools.	Manawa, Wis.
Hartford, Conn.	Rev. W. J. Fitzgerald, S. T. L., diocesan supervisor of schools.	340 Collins St., Hartford, Conn.
Little Rock, Ark.	Right Rev. Thomas V. Tobin, superintendent.	Cathedral, Little Rock, Ark.
Nashville, Tenn.	Rev. S. A. Stritch, D. D., supervisor of diocesan schools.	2001 West End Ave., Nashville, Tenn.
*New Orleans, La.	Rev. L. J. Kavanagh, superintendent.	2432 Napoleon Ave., New Orleans, La.
*New York, N. Y.	Rev. Joseph F. Smith, superintendent of schools.	328 West 14th St., New York, N. Y.
	Rev. Michael J. Larkin, S. T. B., superintendent of schools.	308 East 37th St., New York, N. Y.
Newark, N. J.	Rev. John A. Dillon, superintendent of schools.	91 Washington St., Newark, N. J.
	Rev. William F. Lawlor, assistant superintendent of schools.	691 Westside Ave., Jersey City, N. J.
*Oregon City, Oreg.	Rev. Edwin V. O'Hara, diocesan superintendent of schools.	62 North 16th St., Portland, Oreg.
*Philadelphia, Pa.	Rev. John E. Flood, superintendent of parochial schools.	242 South 20th St., Philadelphia, Pa.
	Rev. William P. McNally, assistant superintendent of parochial schools.	Twenty-ninth and Dickinson Sts., Philadelphia, Pa.
Pittsburgh, Pa.	Rev. Ralph L. Hayes, D. D., superintendent of schools.	116 North Dithridge St., Pittsburgh, Pa.
Rochester, N. Y.	Rev. Joseph S. Cameron, Ph. B., superintendent of schools.	Bath, N. Y.
*St. Louis, Mo.	Rev. Patrick Dooley, superintendent of high schools.	1108 North Jefferson Ave., St. Louis, Mo.
*San Francisco, Cal.	Rev. Ralph Hunt, S. T. L., superintendent of schools.	1200 Florida St., San Francisco, Cal.
Springfield, Mass.	Rev. John F. Conlin, P. R., diocesan school visitor.	Chicopee, Mass.
	Rev. P. F. Doyle, assistant diocesan school visitor.	395 Chestnut St., Springfield, Mass.
Syracuse, N. Y.	Rev. Charles F. McEvoy, superintendent of schools.	Cathedral, Syracuse, N. Y.
Toledo, Ohio.	Rev. George Johnson, superintendent of parochial schools.	525 Islington St., Toledo, Ohio.
Trenton, N. J.	Rev. William J. McConnell, superintendent of parochial schools.	Belmar, N. J.

XXXVI.—Jewish Educational Organizations.

NATIONAL.

Name.	Presiding officer.	Secretary.
Central Conference of American Rabbis, Religious Education Committee.	Moses J. Gries, Cleveland, Ohio.	Joseph S. Kornfeld, Columbus, Ohio.
Council of Jewish Women, Education Committee.	Mrs. Enoch Rauh, 5837 Bartlett St., Pittsburgh, Pa.	Mrs. Leon G. Ball, 507 Shady Ave., Pittsburgh, Pa.
Educational League for the Higher Education of Orphans.	Samuel J. Wolfenstein, 1624 Compton Road, Cleveland, Ohio.	Eugene E. Wolf, 336 Engineers Bldg., Cleveland, Ohio.
Jewish Chautauqua Society.	Jacob Goldbaum, Fels & Co., Philadelphia, Pa.	Jeannette M. Goldberg, Jefferson, Tex.
Union of American Hebrew Congregations, Board of Managers of Synagogue and School Extension.	Charles Shohl, First National Bank Bldg., Cincinnati, Ohio.	George Zepin, 62 Duttenhofer Bldg., Cincinnati, Ohio.

XXXVI.—Jewish Educational Organizations—Continued.

LOCAL.

Name.	Presiding officer.	Secretary.
Hebrew Education Society of Baltimore City.	Baltimore, Md.	Hugo Steiner, Law Bldg.
Bureau of Education of the Jewish Community of New York City.	New York, N. Y.	M. M. Kaplan, 34 Stuyvesant St.
Educational Alliance	do	Bernard M. L. Ernest, 31 Liberty St.
Hebrew Education Society	Newark, N. J.	Leon A. Kohn, 19 Seymour Ave.
Hebrew Education Society of Philadelphia.	Philadelphia, Pa.	Bernard Harris, Stephen Girard Bldg.
Jewish Educational and Charitable Association.	St. Louis, Mo.	Oscar Leonard, 901 Carr St.
Jewish Educational League	Toledo, Ohio.	Sigmond Sanger, 1007 Nicholas Bldg.

XXXVII.—International Associations of Education.[1]

American University Union in Europe. Chairman; Anson Phelps Stokes, New Haven, Conn.; secretary, Roger Pierce, Cambridge, Mass.

Association for the International Exchange of Students. Secretary, Henry W. Crees, Caxton House, Westminster, London, England.

Bureau International de Fédérations d'Instituteurs. President, M. Mieras, jr.; secretary, P. Otto, Bloemendaal, Holland.

International Child Welfare League. President, Mrs. Walston Hill Brown, 117 East 21st St., New York, N. Y.; general secretary, Mrs. George L. Wheelock, 331 West 101st St., New York, N. Y.

International Commission on the Teaching of Mathematics. President, G. Klein, Göttingen; general secretary, H. Fehr, 110 Florissant, Geneva, Switzerland.

International Congress on School Hygiene. President, Albert Mathieu, Paris, France.

International Federation for the Development of Drawing and Art Teaching. Address: Léon Genoud, Fribourg, Switzerland.

International Federation of Catholic Alumnae. President, Clare I. Cogan, 6703 Ridge Boulevard, Brooklyn, N. Y.; secretary, Helen R. O'Neil, 259 84th St., Brooklyn, N. Y.

International Kindergarten Union. President, Caroline D. Aborn, Mason St., Boston, Mass.; secretary, May Murray, Springfield, Mass. Next meeting: Baltimore, Md., spring, 1919.

International Moral Education Congress. Permanent commission. Address: M. Spiller, South Hill Park, 63, London, N. W., England.

International Sunday School Association. President, W. O. Thompson, Columbus, Ohio; secretary, Marion Lawrance, 1516 Mallers Bldg., Chicago, Ill. Next meeting: Kansas City, Mo., 1922.

World's Student Christian Federation. President, Dr. Karl Fries, Stockholm, Sweden; secretary, John R. Mott, 124 East 28th St., New York, N. Y.

XXXVIII.—American Educational Associations.

The following list shows, first, the name of the association; second, the name and address of the president; third, the name and address of the secretary; fourth, the place and date of the next meeting.

1. *National and sectional.*

Alumni Association of American Rhodes Scholars: L. W. Cronkhite, Wellesley Hills, Mass.; Frank Aydelotte, Massachusetts Institute of Technology, Boston, Mass.

American Association for the Advancement of Agricultural Teaching: George A. Works, Cornell University, Ithaca, N. Y.; F. E. Heald, Massachusetts Institute of Technology, Boston, Mass.; Baltimore, Md., January 7, 1919.

American Association for the Advancement of Science. Section L: Vice-president, S. A. Courtis, 82 Eliot St., Detroit, Mich.; Bird T. Baldwin, Walter Reed General Hospital, Washington, D. C.; Baltimore, Md., December 23–28, 1918.

American Association for the Study of the Feeble Minded: Charles A. Little, Thiells, N. Y.; J. M. Murdoch, Polk, Pa.; Chicago, Ill., May 29–30, 1919.

American Association of Agricultural College Editors: Bristow Adams, Cornell University, Ithaca, N. Y.; Frank C. Dean, Ohio State University, Columbus, Ohio; Columbus, Ohio, June, 1919.

American Association of College News Bureaus: T. T. Frankenberg, Columbus, Ohio; Bernard Sobel, 1529 Ferry Street, Lafayette, Ind.

American Association of Collegiate Registrars: A. W. Tarbell, Carnegie Institute of Technology, Pittsburgh, Pa.; Ezra L. Gillis, State University of Kentucky, Lexington, Ky.

American Association of Farmers' Institute Workers: Jewell Mayse, Jefferson City, Mo.; Wesley Webb, Dover, Del.; Baltimore, Md., January 8–10, 1919.

American Association of Instructors of the Blind: Thomas S. McAloney, Pittsburgh, Pa.; N. C. Abbott, Nebraska City, Nebr.; 1920.

American Association of Teachers Colleges: Charles McKenny, Ypsilanti, Mich.; J. G. Crabbe, Greeley, Colo.; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

American Association of Teachers of Journalism: F. N. Scott, University of Michigan, Ann Arbor, Mich.; Lee A. White, Detroit, Mich.; Milwaukee, Wis., probably March, 1919.

[1] Because of the European war no reports have been received during the past year from many international associations.

American Association of Teachers of Spanish: Lawrence A. Wilkins, 598 West 191st St., New York, N. Y.; Alfred Coester, Commercial High School, Brooklyn, N. Y.; New York, N. Y., December 27–28, 1918.
American Association of University Professors: J. M. Coulter, University of Chicago, Chicago, Ill.; H. W. Tyler, Massachusetts Institute of Technology, Cambridge, Mass.; Christmas holidays, 1918.
American Association to Promote the Teaching of Speech to the Deaf: Edmund Lyon, 1441 East Ave., Rochester, N. Y.; Fred DeLand, acting, 1601 35th St., Washington, D. C.; Philadelphia, Pa., summer, 1920.
American Bar Association, Council on Legal Education: Henry Wade Rogers, Federal Building, New York, N. Y.; Henry M. Bates, Ann Arbor, Mich.
American Bar Association, Section of Legal Education: William A. Blount, Pensacola, Fla.; Charles M. Hepburn, Indiana University Law School, Bloomington, Ind.
American Conference of Pharmaceutical Faculties: Charles S. Jordan, Purdue University, Lafayette, Ind.; Theodore J. Bradley, Boston, Mass.; New York, N. Y., about September 1, 1919.
American Council on Education, 309 Munsey Building, Washington, D. C.: Donald J. Cowling; P. L. Campbell.
American Federation of Arts: Robert W. de Forest, 30 Broad St., New York, N. Y.; Leila Mechlin, 1741 New York Ave., Washington, D. C.; May, 1919.
American Federation of Teachers: Charles B. Stillman, 1620 Lake Ave., Wilmette, Ill.; F. G. Stecker, 1618 Lake Ave., Wilmette, Ill.
American Federation of the Teachers of the Mathematical and Natural Sciences: C. Riborg Mann, 576 Fifth Ave., New York, N. Y.; William A. Hedrick, Central High School, Washington, D. C.; Baltimore, Md., December 29, 1918, with the American Association for the Advancement of Science.
American Home Economics Association: Edna N. White, Columbus, Ohio; Cora M. Winchell, Teachers College, New York, N. Y.; June, 1919.
American Humane Education Society: Francis H. Rowley, 180 Longwood Ave., Boston, Mass.; Guy Richardson, 180 Longwood Ave., Boston, Mass.; Boston, Mass., March 25, 1919.
American Institute of Dental Teachers: A. W. Thornton, Montreal, Quebec; Abram Hoffman, 381 Linwood Ave., Buffalo, N. Y.; January 28–30, 1919.
American Institute of Instruction: Wallace E. Mason, Keene, N. H.; John J. Mahoney, Lowell, Mass.; Boston, Mass., November 14–16, 1918.
American Medical Association, Council on Medical Education: Chairman, Horace D. Arnold, Office Surgeon General, Washington, D. C.; N. P. Colwell, 535 North Dearborn St., Chicago, Ill.; Chicago, Ill., February 10, 1919.
American Nature-Study Society: S. C. Schmucker, Westchester, Pa.; Mrs. Anna B. Comstock, Cornell University, Ithaca, N. Y.; Baltimore, Md., December, 1918, with the American Association for the Advancement of Science.
American Physical Education Association: William Burdick, Baltimore, Md.; Mrs. P. B. McCurdy, 93 Westford Ave., Springfield, Mass.; Chicago, Ill., spring, 1919.
American Posture League: Jessie H. Bancroft, 164 Sterling Place, Brooklyn, N. Y.; Henry L. Taylor, 125 West 58th St., New York, N. Y.; New York, N. Y., March, 1919.
American School Hygiene Association: Frances E. Fronczak, Buffalo, N. Y.; William A. Howe, State Education Building, Albany, N. Y.; probably Chicago, Ill.
American School Peace League: Randall J. Condon, Cincinnati, Ohio; Mrs. Fannie F. Andrews, 405 Marlborough St., Boston, Mass.; with the National Education Association.
American Society for the Extension of University Teaching: Henry LaBarre Jayne, 505 Chestnut St., Philadelphia, Pa.; William K. Huff, 730 Witherspoon Building, Philadelphia, Pa.; Philadelphia, Pa.
Associated College Newspaper Publishers: Thomas G. Schaedle, Columbia University, New York, N. Y.; Horace H. Nahm, Columbia University, New York, N. Y.
Associated Harvard Clubs: F. W. Burlingham, 821 Corn Exchange Bank Building, Chicago, Ill.; E. M. Grossman, 820 Rialto Building, St. Louis, Mo.
Association of Alumni Secretaries: Levering Tyson, Columbia University, New York, N. Y.; Charles Jackson, 50 State St., Boston, Mass.
Association of American Agricultural Colleges and Experiment Stations: Eugene Davenport, Urbana, Ill.; J. L. Hills, Vermont Experiment Station, Burlington, Vt.; Baltimore, Md., January 8–10, 1919.
Association of American Colleges: Donald J. Cowling, Northfield, Minn.; Robert L. Kelly, 19 South La Salle St., Chicago, Ill.; Chicago, Ill., January 9–11, 1919.
Association of American Instructors of the Deaf: Percival Hall, Gallaudet College, Washington, D. C.; Frank M. Driggs, Ogden, Utah; Philadelphia, Pa., 1920.
Association of American Law Schools: Harlan F. Stone, Columbia Law School, New York, N. Y.; Eugene A. Gilmore, University of Wisconsin Law School, Madison, Wis.
Association of American Library Schools: Sarah C. N. Bogle, Carnegie Library School, Pittsburgh, Pa.; Florence R. Curtis, University of Illinois Library School, Urbana, Ill.; probably December, 1918.
Association of American Medical Colleges: W. J. Means, Columbus, Ohio; Fred C. Zapffe, 3431 Lexington St., Chicago, Ill.; Chicago, Ill., February 11, 1919.
Association of American Universities: Representative of Indiana University, Bloomington, Ind.; Herman V. Ames, University of Pennsylvania, Philadelphia, Pa.
Association of Biblical Instructors in American Colleges and Secondary Schools: C. F. Kent, Yale University, New Haven, Conn.; Raymond C. Knox, Columbia University, New York, N. Y.
Association of Business Officers of the State Universities and Colleges of the Middle West: M. E. McCaffrey, University of Wisconsin, Madison, Wis.; W. H. Bates, State University of Iowa, Iowa City, Iowa; Chicago, Ill., May, 1919.
Association of Church Directors of Religious Education: Hugh R. Orr, Pittsburgh, Pa.; Mary Lawrance, 10 Cross St., Montclair, N. J.; March, 1919.
Association of City Training School Teachers: John F. Thomas, City Normal School, Detroit, Mich.; Henrietta V. Race, Normal School, Louisville, Ky.
Association of Colleges and Preparatory Schools of the Middle States and Maryland: Virgil Prettyman, Horace Mann School for Boys, New York, N. Y.; George W. McClelland, University of Pennsylvania, Philadelphia, Pa.; Princeton, N. J., November 29–30, 1918.
Association of Colleges and Secondary Schools of the Southern States: Charles G. Maphis, University, Va.; E. A. Bechtel, Tulane University, New Orleans, La.; probably New Orleans, La., November, 1918.
Association of Colleges for Negro Youth: M. W. Adams, Atlanta University, Atlanta, Ga.; George E. Haynes, Department of Labor, Washington, D. C.; Nashville, Tenn., November, 1918.
Association of Collegiate Alumnæ: Mrs. Lois K. Rosenberry, 504 Wisconsin Ave., Madison, Wis.; Mrs. Gertrude S. Martin, 934 Stewart Ave., Ithaca, N. Y.; St. Louis, Mo., June, 1919.
Association of Collegiate Schools of Architecture: Warren Powers Laird, University of Pennsylvania, Philadelphia, Pa.; Clarence A. Martin, Cornell University, Ithaca, N. Y.; with the American Institute of Architects.
Association of Cosmopolitan Clubs: E. W. Burgess, 6025 Kimbark Ave., Chicago, Ill.; Thomas E. Oliver, University of Illinois, Urbana, Ill.; Chicago, Ill., December 26–28, 1918.
Association of Directors of Physical Education for Women: Rachel Hardwick, Boston University, Boston, Mass.; Elizabeth A. Wright, Radcliffe College, Cambridge, Mass.; Cambridge, Mass., April, 1919.

Association of History Teachers of the Middle States and Maryland: Livingston R. Schuyler, College of the City of New York, New York, N. Y.; Daniel C. Knowlton, Central High School, Newark, N. J.; Princeton, N. J., November 29–30, 1918.

Association of Military Colleges and Schools: W. G. Kable, Staunton, Va.; W. H. Steele, Staunton, Va.; Staunton, Va., March 22, 1919.

Association of Modern Language Teachers of the Central West and South: K. McKenzie, Urbana, Ill.; C. H. Handschin, Oxford, Ohio: Chicago, Ill., April, 1919.

Association of Presidents and Past Presidents of State and National Music Teachers' Associations: E. R. Lederman, Centralia, Ill.; Arthur L. Manchester, Hardin College, Mexico, Mo.; Chicago, Ill., July, 1919.

Association of Schools, Colleges, and Seminaries of the Reformed Church: Henry H. Apple, Lancaster, Pa.; George L. Omwake, Collegeville, Pa.

Association of Teachers of Mathematics in New England: Harry B. Marsh, Technical High School, Springfield, Mass.; H. D. Gaylord, 448 Audubon Road, Boston, Mass.; Boston, Mass., December 7, 1918.

Association of Teachers of Mathematics in the Middle States and Maryland: H. E. Hawkes, Columbia University, New York, N. Y.; E. H. Koch, jr., Newark, N. J.; Princeton, N. J., November 30, 1918.

Association of Urban Universities: Lemuel H. Merlin, Boston University, Boston, Mass.; Frederick B. Robinson, College of the City of New York, New York, N. Y.; Boston, Mass., November 15–17, 1918.

Catholic Educational Association: Thomas J. Shahan, Catholic University of America, Washington, D. C.; Francis W. Howard, 1651 East Main St., Columbus, Ohio; June, 1919.

Central Association of Science and Mathematics Teachers: Harry D. Abells, Morgan Park, Ill.; A. W. Cavanaugh, Lewis Institute, Chicago, Ill.; Chicago, Ill., November 29–30, 1918.

Central Commercial Teachers' Association: E. C. Bigger, Lincoln, Nebr.; Adelaide Hakes, Gregg School, Chicago, Ill.

Child Education Foundation: C. W. McAlpin, 520 Park Ave., New York, N. Y.; Kenneth G. Kirtland, 128 West 74th St., New York, N. Y.; New York, N. Y., October 1, 1918.

Classical Association of New England: Monroe N. Wetmore, Williams College, Williamstown, Mass.; George E. Howes, Williams College, Williamstown, Mass.; Norton, Mass., spring, 1919.

Classical Association of the Atlantic States: Robert B. English, Washington, Pa.; Charles Knapp, Barnard College, New York, N. Y.; probably April or May, 1919.

Classical Association of the Middle West and South: Campbell Bonner, University of Michigan, Ann Arbor, Mich.; Louis E. Lord, Oberlin, Ohio; Easter week, 1919.

Classical Association of the Pacific States, Northern Section: Thomas K. Sidey, University of Washington, Seattle, Wash.; Julianne A. Roller, 1145 Ivon St., Portland, Oreg.; Seattle, Wash., probably December 27–28, 1918.

College Art Association of America: John Pickard, Columbia, Mo.; John Shapley, Brown University, Providence, R. I.; probably Cleveland, Ohio.

College Conference on English in the Central Atlantic States: James W. Tupper, Lafayette College, Easton, Pa.; W. O. Sypherd, Delaware College, Newark, Del.

College Entrance Examination Board: Chairman, Robert N. Corwin, Sheffield Scientific School, New Haven, Conn.; Thomas S. Fiske, 431 West 117th St., New York, N. Y.; New York, N. Y., November 2, 1918.

Commission on Accredited Schools of the Association of Colleges and Secondary Schools of the Southern States: W. H. Hand, Knoxville, Tenn.; Harry Clark, Knoxville, Tenn.; probably New Orleans, La., November, 1918.

Committee of Fifteen on Educational Preparation for Foreign Service (with Advisory Council): Glen Levin Swiggett, Bureau of Education, Washington, D. C.

Committee on Friendly Relations Among Foreign Students: Cleveland H. Dodge, 99 John St., New York, N. Y.; Charles D. Hurrey, 347 Madison Ave., New York, N. Y.

Committee on Patriotism through Education of the National Security League: Director, Robert McNutt McElroy, 19 West 44th St., New York, N. Y.; Mrs. Thomas J. Preston, jr., 19 West 44th St., New York, N. Y.

Conference of Church Workers in State Universities: Thomas R. Evans, Princeton, N. J.; Roy Hamilton, 938 Lincoln Pl., Boulder, Colo.; Columbus, Ohio, January 4–6, 1919.

Conference of Colleges of the Interior: Secretary, Walter H. Rollins, Fairmount College, Wichita, Kans.

Conference of Superintendents and Principals of Schools for the Deaf in the United States and Canada: J. W. Jones, School for the Deaf, Columbus, Ohio; Frank M. Driggs, Ogden, Utah; St. Augustine, Fla.

Conference on Universities and Public Service: Secretary, Edward A. Fitzpatrick, Box 380, Madison, Wis.

Daughters of the American Revolution, Committee on Patriotic Education: Chairman, Lotte E. Jones, 112 West North St., Danville, Ill.

Drama League of America: Philip D. Sherman, Oberlin College, Oberlin, Ohio; Alice M. Houston, 1426 Forrest Ave., Evanston, Ill.

Eastern Arts Association: Augustus F. Rose, Providence, R. I.; Fred P. Beagle, Board of Education, Montclair, N. J.

Eastern Association of Physics Teachers: Charles B. Farrington, Newtonville, Mass.; Alfred M. Butler, 198 Park St., West Roxbury, Mass.; Boston, Mass., October, 1918.

Eastern Commercial Teachers' Association: H. G. Healey, 609 West 158th St., New York, N. Y.; D. A. McMillin, Central High School, Newark, N. J.; Springfield, Mass., April 17–19, 1919.

Eastern Music Supervisors' Conference: Ralph L. Baldwin, Hartford, Conn.; Richard W. Grant, Somerville, Mass.; probably New York, N. Y., April, 1919.

Educational Aid Society, 437 First National Bank Building, Chicago, Ill.: Harry J. Myers; Elizabeth M. Phillips; Chicago, Ill., January 14, 1919.

Educational Association of the Methodist Episcopal Church: W. H. McMaster, Alliance, Ohio; Hubert Phillips, Onarga, Ill.; Chicago, Ill., January, 1919.

Educational Dramatic League: Mrs. August Belmont, 105 West 40th St., New York, N. Y.; Miss Marion A. Turner, 105 West 40th St., New York, N. Y.

Educational Press Association of America: Henry C. Williams, Columbus, Ohio; George L. Towne, University Publishing Company, Lincoln, Nebr.; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

Farmers' Educational Cooperative Union of America: O. P. Ford, McFall, Ala.; Miss Lutie B. Wyatt, 2130 Maine Ave., Birmingham, Ala.

Federación de Estudiantes Latino-Americanos: Secretary, J. M. Hermández, Ann Arbor, Mich.

Federation for Child Study: Mrs. Howard S. Gans, 401 West End Ave., New York, N. Y.; Miss Sonia Greles, 2 West 64th St., New York, N. Y.; New York, N. Y., November 6, 1918.

Federation of Modern Language Teachers' Associations: Robert H. Fife, jr., Middletown, Conn.; Bertha Vogel, South Boston High School, Boston, Mass.; probably New York, N. Y., December 1, 1918.

Head Masters' Association: Frederick Winsor, Concord, Mass.; Arthur F. Warren, 241 West 77th St., New York, N. Y.; Boston, Mass., February 7–8, 1919.

Head Mistresses' Association of the Middle West: L. Gertrude Angell, Buffalo, N. Y.; Grace L. Jones, Columbus School for Girls, Columbus, Ohio; January, 1919.

Inland Empire Council of Teachers of English: F. M. Padelford, Seattle, Wash.; L. W. Sawtelle, Sheridan, Oreg.; Spokane, Wash., April, 1919.

Inland Empire Teachers' Association: Ethel E. Redfield, Boise, Ida.; J. A. Burke, E. 2225 Illinois Ave., Spokane, Wash.; Spokane, Wash., Spring, 1919.

Lake Mohonk Conference of Friends of the Indian and other Dependent Peoples: Presidency vacant; H. C. Phillips, Mohonk Lake, N. Y.

Land Grant College Engineering Association: W. M. Riggs, Clemson College, S. C.; A. A. Potter, Manhattan, Kans.; Baltimore, Md., November 13-15, 1918.

Lutheran Education Society: William E. Schlake, 111 W. Washington St., Chicago, Ill.; C. J. Schwanke, 3305 N. Hamilton Ave., Chicago, Ill.; Chicago, Ill., April 24, 1919.

Middle West Society of Physical Education and Hygiene: M. I. Foss, 5315 Drexel Ave., Chicago, Ill.; Katherine Cronin, 5306 Woodlawn, Chicago, Ill.; Chicago, Ill., with American Physical Education Society.

Missionary Education Movement of the United States and Canada: Samuel Thorne, jr., 27 Cedar St., New York, N. Y.; Ernest F. Hall, 160 Fifth Ave., New York, N. Y.; New York, N. Y., January, 1919.

Mississippi Valley Historical Association, Teachers' Section: R. M. Tryon, University of Chicago, Chicago, Ill.; Howard C. Hill, University High School, Chicago, Ill.; St. Louis, Mo., May, 1919.

Missouri Valley Commercial Teachers' Association: S. J. Shook, Topeka, Kans.; Mrs. E. M. Platt, 801 Francis St., St. Joseph, Mo.; Kansas City, Mo., November, 1918.

Modern Language Association of the Middle States and Maryland: Marion P. Whitney, Poughkeepsie, N. Y.; Anna W. Ballard, Columbia University, New York, N. Y.; Princeton, N. J., November 30, 1918.

Music Teachers' National Association: Charles N. Boyd, 4259 Fifth Ave., Pittsburgh, Pa.; William Benbow, 725 Elmwood Ave., Buffalo, N. Y.; St. Louis, Mo.: December 30, 1918–January 1, 1919.

National Associated Schools of Scientific Business: W. N. Ferris, Big Rapids, Mich.; Sherwin Cody, 189 West Madison St., Chicago, Ill.; New York, N. Y., November 29–30, 1918.

National Association for the Study and Education of Exceptional Children: Theodore Stempfel, Indianapolis, Ind.; Waldemar H. Groszmann, Plainfield, N. J.

National Association of Accredited Commercial Schools: B. F. Williams, Des Moines, Iowa; H. E. V. Porter, Jamestown, N. Y.; Chicago, Ill., December 26, 1918.

National Association of Corporation Schools: H. M. Rowe, Baltimore, Md.; F. C. Henderschott, Irving Place and 15th St., New York, N. Y.; Chicago, Ill., June, 1919.

National Association of Dental Faculties: Herbert C. Miller, Fifteenth and Couch Sts., Portland, Oreg.; C. C. Allen, Tenth and Troost Sts., Kansas City, Mo.; New Orleans, La.

National Association of Directors of Educational Research: R. B. Buckingham, Madison, Wis.; E. J. Ashbaugh, Iowa City, Iowa; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National Association of French Teachers in America: Auguste George, 100 St. Nicholas Ave., New York, N. Y.; Eugene Maloubier, 129 Columbia Heights, Brooklyn, N. Y.; New York, N. Y., September 28 1918.

National Association of High School Supervisors and Inspectors: J. D. Elliff, University of Missouri, Columbia, Mo.; J. J. Didcoct, Peabody Teachers College, Nashville, Tenn.; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National Association of Penmanship Supervisors: C. A. Barnett, 307 Board of Education, Cleveland, Ohio; H. W. Huntsinger, Spencerian Commercial School, Cleveland, Ohio.

National Association of Public School Building Officers: C. W. Handman, Board of Education. Cincinnati, Ohio; R. M. Milligan, Commissioner of School Buildings, St. Louis, Mo.; Rochester, N. Y., November 13, 1918.

National Association of School Accounting and Business Officers: J. S. Mullan, Rochester, N. Y.; E. C. Baldwin, Boston, Mass.; Cleveland, Ohio, May, 1919.

National Association of Secondary School Principals: W. D. Lewis, William Penn High School for Girls, Philadelphia, Pa.; H. V. Church, Cicero, Ill.; Chicago, Ill., February, 1919.

National Association of State Supervisors and Inspectors of Rural Schools: Lee L. Driver, Winchester, Ind.; Julia M. Stone, Topeka, Kans.; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National Association of State Universities in the United States of America: Guy P. Benton, University of Vermont, Burlington, Vt.; F. L. McVey, University of Kentucky, Lexington, Ky.; Washington, D. C., November 11-12, 1918.

National Association of Teachers' Agencies: Willard W. Andrews, 81 Chapel St., Albany, N. Y.; A. P. Goddard, 19 South La Salle St., Chicago, Ill.; Chicago, Ill., February 24–March 1, 1919, with the Department of Superintendence, National Education Association.

National Association of Teachers in Colored Schools: S. G. Atkins, Winston-Salem, N. C.; S. X. Floyd, Augusta, Ga.; Orangeburg, S. C., July 30–August 3, 1919.

National Association of Teachers of Speech: Howard S. Woodward, Western Reserve University, Cleveland, Ohio; C. H. Thurber, Purdue University, Lafayette, Ind.; Chicago, Ill., December 26–28, 1918.

National Child Labor Committee: Chairman, Felix Adler, 33 Central Park West, New York, N. Y.; Owen R. Lovejoy, 105 East 22d St., New York, N. Y.

National Child Welfare Association: William M. Kingsley, 70 Fifth Ave., New York, N. Y.; Charles F. Powlison, 70 Fifth Ave., New York, N. Y.

National Collegiate Athletic Association: Palmer E. Pierce, War College, Washington, D. C.; Frank W. Nicolson, Wesleyan University, Middletown, Conn.; New York, N. Y., December, 1918.

National Commercial Teachers' Federation: James C. Reed, Whitewater, Wis.; Otis L. Trenary, Kenosha, Wis.; Chicago, Ill., December, 1919.

National Community Center Association: John Collier, 70 5th Ave., New York, N. Y.; Edward L. Burchard, 1415 East 57th St., Chicago, Ill.; probably Chicago, Ill., February, 1919.

National Conference Committee on Standards of Colleges and Secondary Schools: A. Ross Hill, University of Missouri, Columbia, Mo.; Frank W. Nicolson, Middletown, Conn.; New York, N. Y., February, 1919.

National Conference of Deans of Women: Kathryn S. McLean, Ohio Wesleyan University, Delaware, Ohio; Anne D. Blitz, William-Smith College, Geneva, N. Y.; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National Conference of Music Supervisors: Osbourne McConathy, Evanston, Ill.; Mabelle E. Glenn, Bloomington, Ill.

National Conference on the Education of Truant, Backward, Dependent, and Delinquent Children: Hobart H. Todd, Industry, N. Y.; Charles H. Johnson, Albany, N. Y.; Atlantic City, N. J.

National Council of Executive and Administrative Women in Education: Ada Van Stone Harris, Pittsburgh, Pa.; Ethel C. Redfield, Boise, Idaho; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National Council of Geography Teachers: Albert P. Brigham, Hamilton, N. Y.; George J. Miller, Mankato, Minn.

National Council of Normal School Presidents and Principals: J. A. Pitman, Salem, Mass.; Charles H. Cooper, Mankato, Minn.; Chicago, Ill., February 21–22, 1919.

National Council of Primary Education: Chairman, Ella Victoria Dobbs, University of Missouri, Columbia, Mo.; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National Council of Teachers of English: Edwin L. Miller, Northwestern High School, Detroit, Mich.; James F. Hosic, Chicago Normal College, Chicago, Ill.; Chicago, Ill., November 28-30, 1918.

National Education Association: George D. Strayer, Teachers College, Columbia University, New York, N. Y.; James W. Crabtree, 1400 Massachusetts Ave., Washington, D. C.; Milwaukee, Wis., June 29–July 5, 1919.

National Education Association, Department of Superintendence: E. C. Hartwell, St. Paul, Minn.; Marie Gugle, Columbus, Ohio; Chicago, Ill., February 24–March 1, 1919.

National Education Association, National Council of Education: W. B. Owen, Normal School, Chicago, Ill.; Adelaide S. Baylor, 2308 Park Ave., Indianapolis, Ind.; Chicago, Ill., February 24–March 1, 1919.

National Educators' Conservation Society: Charles L. Bristol, 1013 Prospect Place, Brooklyn, N. Y.; Nomer Gray, 1013 Prospect Place, Brooklyn, N. Y.; New York, N. Y., January 15, 1919.

National Federation of College Women: Mrs. Myra K. Miller, Long Beach, Cal.; Mrs. Harriet H. Barry, Monrovia, Cal.; probably Chicago, Ill., 1919.

National Federation of State Education Associations: Charles S. Foos, Reading, Pa.; Henry J. Neal, Phillipsburg, N. J.; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National German-American Teachers' Association (Nationaler Deutsch-Amerikanischer Lehrerbund): President, Leo Stern, 969 2d St., Milwaukee, Wis.

National Kindergarten Association: Bradley Martin, 8 West 40th St., New York, N. Y.; Bessie Locke, 8 West 40th St., New York, N. Y.; New York, N. Y., November, 1919.

National League for Life Assurance Education: Secretary, T. R. Weddell, Insurance Exchange, Chicago, Ill.; Chicago, Ill., September 17, 1918.

National League of Compulsory Education Officials: Charles A. McCall, City Hall, Newark, N. J.; T. P. Twiggs, 254 Lathrop Ave., Detroit, Mich.; St. Louis, Mo., November 20–22, 1918.

National League of Nursing Education: S. Lillian Clayton, Philadelphia General Hospital, Philadelphia, Pa.; Laura R. Logan, Cincinnati General Hospital, Cincinnati, Ohio; Chicago, Ill.

National League of Teacher-Mothers: Ella Frances Lynch, Bryn Mawr, Pa.

National League of Teachers' Associations: Sallie Hill, 1029 Emerson St., Denver, Colo.; Grace Benton, 715 North Nevada Ave., Colorado Springs, Colo.

National Society for Broader Education: Guy Carleton Lee, Carlisle, Pa.; H. H. Langsdorf, 168 West High St., Carlisle, Pa.; New York, N. Y., January 1, 1919.

National Society for the Study and Correction of Speech Disorders: Walter B. Swift, 110 Bay State Road, Boston, Mass.; Marguerite R. Franklin, 110 Bay State Road, Boston, Mass.; Cleveland, Ohio, December 2, 1918.

National Society for the Study of Education: George D. Strayer, Columbia University, New York, N. Y.; Guy M. Whipple, Carnegie Institute of Technology, Pittsburgh, Pa.; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National Society for Vocational Education: David Snedden, Teachers College, Columbia University, New York, N. Y.; May Allinson, 140 West 42d St., New York, N. Y.; St. Louis, Mo., February 20–22, 1919.

National Society of College Teachers of Education: W. C. Bagley, Teachers College, Columbia University, New York, N. Y.; Guy M. Wilson, Iowa State Agricultural College, Ames, Iowa; Chicago, Ill., February, 1919, with the Department of Superintendence, National Education Association.

National Speech Arts Association: Charles M. Holt, 60–62 11th St., South, Minneapolis, Minn.; Jessie E. Tharp, 3425 Prytania St., New Orleans, La.

National Story Tellers League: President, Richard T. Wyche, 3 Kennedy St., Washington, D. C.; Brooklyn, N. Y., October 15–16, 1918.

National University Extension Association: C. B. Robertson, University of Pittsburgh, Pittsburgh, Pa.; W. H. Lighty, University of Wisconsin, Madison, Wis.; Chicago, Ill., February 27–March 1, 1919.

National Vocational Art and Industrial Federation; Secretary, Mrs. Robert L. McCall, 4714 Washington Boulevard, Chicago, Ill.

National Vocational Guidance Association: Frank V. Thompson, Boston, Mass.; Roy W. Kelley, Harvard University, Cambridge, Mass.

New England Association of Chemistry Teachers: George A. Cowen, Jamaica Plain, Mass.; S. W. Hoyt, Mechanic Arts High School, Boston, Mass.

New England Association of College Teachers of Education: J. F. Messenger, University of Vermont, Burlington, Vt.; S. Monroe Graves, Wellesley Hills, Mass.

New England Association of Colleges and Secondary Schools: Ellen F. Pendleton, Wellesley, Mass.; Walter B. Jacobs, Brown University, Providence, R. I.; Boston, Mass., December 6–7, 1918.

New England Association of School Superintendents: Fred H. Nickerson, Medford, Mass.; Francis McSherry, Holyoke, Mass.; Boston, Mass., probably November 14–16, 1918.

New England Association of Teachers of English: Walter S. Hinchman, Groton School, Groton, Mass.; A. B. de Mille, Milton Academy, Milton, Mass.; Boston, Mass., November 16, 1918.

New England College Entrance Certificate Board: Angie C. Chapin, Wellesley College, Wellesley, Mass.; Frank W. Nicolson, Middletown, Conn.; Boston, Mass., April, 1919.

New England Federation of High School Commercial Teachers: Raymond G. Laird, Boston, Mass.; W. O. Holden, Pawtucket, R. I.; Boston, Mass., November 16, 1918.

New England History Teachers' Association: Harry M. Varrell, Simmons College, Boston, Mass.; Horace Kidger, Technical High School, Newtonville, Mass.; probably Boston, Mass., October, 1918.

New England Home Economics Association: Mrs. S. F. Herron, Winchester, Mass.; Mrs. Edith H. Brown, 266 Brookline Ave., Boston, Mass.

New England Modern Language Association: Joel Hatheway, High School of Commerce, Boston, Mass.; Bertha Vogel, South Boston High School, Boston, Mass.; Boston, Mass., May 10, 1919.

New England Montessori Association: Mrs. Dillingham, Concord, Mass.; Anne Howe, 354 Marlboro St., Boston, Mass.

New England Penmanship Association: John L. Hayward, Somerville, Mass.; Hazel Waite, Stoughton, Mass.; Boston, Mass., January, 1919.

North Central Association of Colleges and Secondary Schools: George Buck, Indianapolis, Ind.; Henry E. Brown, Kenilworth, Ill.; Chicago, Ill., March 20–22, 1919.

North Central Council of State Normal School Presidents: F. A. Cotton, La Crosse, Wis.; J. G. Crabbe, Greeley, Colo.

Northwest Association of Secondary and Higher Schools: W. M. Kern, Walla Walla, Wash.; Leonard V. Koos, University of Washington, Seattle, Wash.; Spokane, Wash., April 3–4, 1919.

Northwestern Association of History, Government, and Economics Teachers: James Bever, Bellingham, Wash.; Leroy F. Jackson, State College of Washington, Pullman, Wash.

Patriotic Education Society, Inc.: President, Henry A. Wise Wood, 25 Madison Ave., New York, N. Y.

Playground and Recreation Association of America: Joseph Lee, 101 Tremont St., Boston, Mass.; Howard S. Braucher, 1 Madison Ave., New York, N. Y.
Presbyterian Educational Association of the South: Henry H. Sweets, 122 South Fourth Ave., Louisville, Ky.; D. S. Gage, 410 Urban Building, Louisville, Ky.; Montreat, N. C., July, 1919.
Religious Education Association: Samuel A. Eliot, Boston, Mass.; Henry F. Cope, 1440 East 57th St., Chicago, Ill.; Detroit, Mich., March 17–19, 1919.
School Board Members' Association, 33 East 27th St., New York, N. Y.; Secretary, H. S. Chapin.
School Garden Association of America: J. H. Francis, Bureau of Education, Washington, D. C.; E. F. Murphy, Richmond, Ind.; Chicago, Ill., February 28, 1919, with the Department of Superintendence, National Education Association.
Society for the Promotion of Engineering Education: John F. Hayford, Cosmos Club, Washington, D. C.; F. L. Bishop, University of Pittsburgh, Pittsburgh, Pa.; June, 1919.
Society of Directors of Physical Education in Colleges: Joseph E. Raycroft, Princeton, N. J.; Paul C. Phillips, Amherst College, Amherst, Mass.; New York, N. Y., December, 1918.
Southern Association of College Women: Elizabeth A. Colton, Meredith College, Raleigh, N. C.; Mary L. Harkness, Newcomb College, New Orleans, La.; Columbus, Miss., April, 1919.
Southern Baptist Education Association: Rufus W. Weaver, Macon, Ga.; A. R. Bond, Nashville, Tenn.; Nashville, Tenn., January 23–24, 1919.
Southern Commission on Accredited Schools: W. H. Hand, University of South Carolina, Columbia, S. C.; Harry Clark, University of Tennessee, Knoxville, Tenn.
Southern Conference of Teachers of English: Maurice Fulton, Davidson, N. C.; James M. Grainger, Farmville, Va.
Southern Education Society: T. J. Woofter, Athens, Ga.; A. P. Bourland, 1707 Kilbourne Place, Washington, D. C.; Gainesville, Fla., December 30, 1918–January 1, 1919.
Southern Home Economics Association: Edith M. Thomas, State College, Tallahassee, Fla.; Ada M. Field, Peabody College, Nashville, Tenn.
Southern Industrial Education Association: C. C. Calhoun, Evans Building, Washington, D. C.; Mrs. A. S. Stone, 1228 Connecticut Ave., Washington, D. C.; Washington, D. C., October 28, 1918.
Universal Military Training League: Howard H. Gross, Chicago, Ill.; Mrs. H. K. Abbott, 336 West Marquette Road, Chicago, Ill.
University Commission on Southern Race Questions: James J. Doster, University of Alabama, University, Ala.; W. M. Hunley, Lexington, Va.
Vocational Education Association of the Middle West: Albert G. Bauersfeld, 1225 Sedgewick St., Chicago, Ill.; Leonard W. Wahlstrom, 330 Webster Ave., Chicago, Ill.; Chicago, Ill., January, 16–18, 1919.
Western Association of College Teachers of Education: Herbert G. Lull, Emporia, Kans.; B. E. McProud, University Place, Nebr.; Kansas City, Mo., December 27–28, 1918.
Western Drawing and Manual Training Association: Ira S. Griffith, University of Missouri, Columbia, Mo.; L. R. Abbott, Grand Rapids, Mich.
Women's Educational and Industrial Union, 264 Boylston St., Boston, Mass.: Acting president, Caroline L. Humphrey; acting secretary, Elizabeth W. Schermerhorn; Boston, Mass., November 12, 1918.
Women's Intercollegiate Association for Student Government: Representative of Wilson College, Chambersburg, Pa.: Sarah G. Taylor, representative of Bryn Mawr College, Bryn Mawr, Pa.; Chambersburg, Pa., November, 1920.
Y. M. C. A. Educational Secretaries Association: A. L. Ward, 19 South La Salle St., Chicago, Ill.; R. R. Blackney, Y. M. C. A., Buffalo, N. Y.

2. *State.*

Alabama:
- Alabama Educational Association: Cora Pearson, Florence; J. Alex Moore, Jasper.
- Alabama History Teachers' Association: John B. Clark, Montgomery; D. G. Chase, 2205 15th Ave. N, Birmingham; probably April, 1919.
- Alabama Home Economics Association: Sarah Bandy, Athens; Evelyn Herrington, Montevallo; Montevallo, January 29–30, 1919.
- Alabama State Teachers' Association: G. W. Scott, Pratt City; P. C. Parks, Normal; Montgomery, April 17–19, 1919.
- Alabama Sunday School Association: Lloyd M. Hooper, State Capitol, Montgomery; Leon C. Palmer, Montgomery; Mobile, April 8–10, 1919.
- Association of Alabama Colleges: J. C. Dawson, Howard College, East Lake; James J. Doster, University of Alabama, University; April, 1919.
- Association of English Teachers of Alabama: Janet Simpson, Florence; J. R. Rutland, Auburn; Spring, 1919.

Arizona:
- Arizona State Teachers' Association: R. H. H. Blome, Bisbee; Elsie Toles, Tombstone.

Arkansas:
- Arkansas School Directors' Association: Allen Winham, Texarkana; L. B. McClure, Russellville.
- Arkansas State Teachers' Association: J. R. Jewell, University of Arkansas, Fayetteville; Annie Griffey, Little Rock; probably Little Rock, April 24–26, 1919.

California:
- California Council of Education: E. Morris Cox, Oakland; Arthur H. Chamberlain, Monadnock Building, San Francisco; April 12, 1919.
- California Federation of School Women's Clubs: Margaret Burke, 1496 Guerrero St., San Francisco; Elsie Northrup, San Mateo; San Francisco, November, 1918.
- California High School Teachers' Association: P. M. Fisher, Oakland Technical High School, Oakland; Lulu Skelton, 526 66th St., Oakland; Oakland, February 11, 1919.
- California History Teachers' Association: President, Roy Granger, Oakland; Christmas holidays, 1918.
- California Music Teachers' Association: Albert F. Conant, San Diego; Grace Cox, 1621 Neale St., San Diego; San Francisco, July, 1919.
- California State Association of English Teachers: Adeline Croyland, 655 Stockton St., San Francisco; Irene Furlong, 1590 Sacramento St., San Francisco; San Francisco, November, 1918.
- California Teachers' Association, Bay Section: W. J. Cooper, Piedmont; W. L. Glascock, San Mateo; Oakland, April 14–18, 1919.
- California Teachers' Association, Central Coast Section: E. E. Brownell, Gilroy; G. A. Bond, Santa Cruz; San Jose, November 26–27, 1918.
- California Teachers' Association, Northern Section: H. G. Rawlins, Willows; Mrs. M. R. O'Neill, Sacramento; Sacramento, probably October 31, 1918.
- California Teachers' Association, Southern Section: E. C. Moore, Los Angeles; A. E. Wilson, Los Angeles; Los Angeles, week of December 16, 1918.
- Visual Education Association of California: C. H. Carson, High School, Pasadena; A. J. Misner, Lincoln High School, Los Angeles.
- Vocational Guidance Society of California: Clarkson Dye, San Francisco; Carlotta P. Ebbets, 3407 Clay St., San Francisco.

Colorado:
Colorado Mathematical Society: Ira M. De Long, Boulder; Grace H. Shoe-Smith, 1130 York St., Denver; Denver, November, 1918.
Colorado Teachers' Association: J. A. Sexson, Sterling; H. B. Smith, 232 Century Building, Denver.
Connecticut:
Connecticut Arts Association: Edwin M. Roberts, Glenbrook; William L. Hagen, New Britain; New Haven, October, 1918.
Connecticut Business Educators' Association: Frank G. Meredith, Meriden; Frances E. Ives, New Haven High School, New Haven.
Connecticut Council of Education: Arthur T. Hadley, New Haven; Henry A. Tirrell, Norwich.
Connecticut Home Economics Association: Orissa M. Baxter, 57 Farmington Ave., Hartford; Myra Hunt, South Manchester; Hartford or New Haven, probably October, 1918.
Connecticut Schoolmasters' Club: Winthrop Buck, Wethersfield; Karl A. Reiche, Bristol; Hartford, February, 1919.
Connecticut State Supervisors' Association: William H. Bliss, Chestnut Hill; C. E. Wheeler, New London.
Connecticut State Teachers' Association: Clement C. Hyde, Hartford; S. P. Willard, Colchester; Hartford, New Haven, Norwalk, Norwich, October 25, 1918.
Connecticut State Teachers' League: Elizabeth J. Cairns, 19 Atwood St., Hartford; Sarah E. Clark, 20 Atwood St., Hartford; Hartford, New Haven, October 25, 1918.
Connecticut Superintendents' Association of Public Schools: S. J. Slawson, Bridgeport; E. J. Graham, Norwich; Bridgeport, February, 1919.
Connecticut Trade Educators' Association: F. J. Trinder, Capitol, Hartford; E. D. Packard, New Britain; Putnam, September 20, 1918.
District of Columbia:
Federal Schoolmen's Club: Louis D. Bliss, Bliss Electrical School, North Takoma Park, Md.; A. W. Miller, Central High School, Washington.
High School Teachers' Association: Miss M. H. Brewer, The Woodley, Washington; Dorothea F. Sherman, Western High School, Washington.
Principals' Association of the Graded White Schools; Adelaide Davis, Seward Apartment, Washington; Mary A. Dilger, 1211 Euclid St. NW., Washington.
School Club: G. D. Houston, 1758 T St. NW., Washington; H. G. Douglass, 318 A St. NE., Washington.
Florida:
Florida Educational Association: George W. Tedder, Madison; R. L. Turner, Inverness; Fort Myers, December 26–28, 1918.
Florida History Teachers' Association: Caroline M. Brevard, Tallahassee; Essie May Williams, 209 West Ashley St., Jacksonville; Gainesville, December 27–28, 1918.
Georgia:
Georgia County School Officials' Association: M. L. Brittain, Atlanta; M. L. Duggan, Atlanta.
Georgia Educational Association: Walter P. Thomas, West Point; Kyle T. Alfriend, Milledgeville; Macon, April, 1919.
Georgia State High School Association: Joseph S. Stewart, University of Georgia, Athens; W. P. Thomas, West Point; Athens, June, 1919.
Georgia State Teachers' Association: W. D. Thomas, Savannah; S. X. Floyd, Augusta; Augusta, November 29–30, 1918.
Idaho:
Idaho State Teachers' Association: O. O. Young, Boise; Ivy M. Wilson, 1509 State St., Boise; Boise, December 26–29, 1918.
Illinois:
Association of Primary Supervisors and Directors of City Training Schools: Edna Keith, Joliet.
Federation of Illinois Colleges: Walter D. Agnew, Abingdon; H. E. Griffith, Knox College, Galesburg; Eureka, April 28–29, 1919.
High School Conference, University of Illinois: Chairman of Conference Committee, Horace A. Hollister, University of Illinois, Urbana; Urbana, November 21–23, 1918.
Illinois Association of Teachers of English: A. F. Trams, Pontiac; E. C. Baldwin, University of Illinois, Urbana; Urbana, November 20, 1918.
Illinois City Superintendents' Association: G. P. Randall, Danville; I. M. Allen, Springfield; Decatur, November, 1918.
Illinois Manual Arts Association: A. G. Hill, Rock Island; F. O. Edwards, 600 Leland Annex, Springfield; Rock Island, February, 1919.
Illinois Montessori Association: Mrs. Walter E. Clark, 1220 East 57th St., Chicago; Dorothy Sears, Kenilworth.
Illinois State Music Teachers' Association: Harry R. Detweiler, Aurora; Herbert O. Merry, Lincoln; May, 1919.
Illinois State School Board Association: R. C. Augustine, 143 North Water St., Decatur; Mrs. G. A. Stover, 710 South Elmwood Ave., Oak Park; Decatur, November, 1918.
Illinois State Teachers' Association: George D. Wham, Carbondale; Robert C. Moore, Carlinville; Springfield, December 26–28, 1918.
Schoolmasters' Club of Illinois: W. P. Morgan, Macomb; Anthony Middleton, Peoria; October, 1918.
Indiana:
Association of Indiana Industrial Teachers: Paul Covert, Indianapolis; Hubert W. Roberts, Anderson.
Indiana Association of Psychology and Education: H. L. Smith, Bloomington; Flora Wilber, Fort Wayne; Indianapolis, November, 1918.
Indiana Association of Science and Mathematics Teachers: Edwin W. Morrison, Richmond; James E. Weyant, 336 North Audubon St., Indianapolis; October, 1919, with Indiana State Teachers' Association.
Indiana Association of Teachers of English: Mrs. R. M. Mikels, Indianapolis; Harriet McClellan, 621 Massachusetts Ave. NE., Washington, D. C.; Indianapolis, October 31, 1918.
Indiana City and Town Superintendents' Association: C. V. Haworth, Kokomo; C. P. Keller, Brazil; Indianapolis, January 10–11, 1919.
Indiana City Superintendents' Research Club: C. V. Haworth, Kokomo; E. J. Llewelyn, Newcastle; Kokomo, January 2, 1919.
Indiana College Teachers of German: A. D. Charles, Richmond; M. D. Baumgartner, Butler College, Indianapolis; Athenæum, October, 1918.
Indiana History Teachers' Association: Beverley W. Bond, jr., Purdue University, Lafayette; D. H. Eilsenberry, Muncie.
Indiana Home Economics Association: Mary L. Matthews, Purdue University, Lafayette; Alma L. Garvin, Purdue University, Lafayette; Lafayette, January, 16, 1919.
Indiana Music Teachers' Association: R. G. McCutchan, DePauw University, Greencastle; Glenn M. Tindall, Kokomo; Kokomo, March or April, 1919.

Indiana—Continued.
Indiana State Teachers' Association: Horace Ellis, Indianapolis; Harriet McClellan, 621 Massachusetts Ave. NE., Washington, D. C.; October, 1919.
Indiana University, Conference on Educational Measurements (under direction of Bureau of Cooperative Research, Indiana University, Bloomington): Meeting, Bloomington, Ind., probably April 17–18, 1919.

Iowa:
Iowa Association of Mathematics Teachers: E. E. Watson, Parsons College, Fairfield; Ira S. Condit, Iowa State Teachers' College, Cedar Falls; Des Moines, November 1–3, 1918.
Iowa Association of Science Teachers: F. E. Goodell, University High School, Iowa City; Frances Church, East High School, Des Moines; Des Moines, October 31–November 1, 1918.
Iowa Association of Teachers of English: W. A. Brindley, Fort Dodge; Charles F. Pye, Des Moines; Des Moines, November 1, 1918.
Iowa College Presidents' Association: J. H. T. Main, Grinnell; J. H. Campbell, Simpson College, Indianola; Des Moines, September 16, 1918.
Iowa Home Economics Association: Vice-president, Mary Haight, Cedar Rapids; Genevieve Fisher, Iowa State College, Ames; Des Moines, November, 1918.
Iowa Society of Social Science Teachers: Charles M. Meyerholz, Teachers' College, Cedar Falls; Martha Hutchinson, 2912 University Ave., Des Moines; Des Moines, November 1–2, 1918.
Iowa State Federation of Teachers' Clubs: Jacob C. Grason, Council Bluffs; Gertrude G. Jenne, Davenport; Des Moines, November 8, 1918.
Iowa State Teachers' Association: M. G. Clark, Sioux City; Charles F. Pye, Des Moines; Des Moines, October 31–November 2, 1918.

Kansas:
Golden Belt Educational Association: S. L. Soper, Ellis.
Kansas Association of Mathematics Teachers: Secretary, J. A. G. Shirk, Pittsburg; probably February, 1919.
Kansas Association of Superintendents of Cities of First and Second Class: H. B. Wilson, Berkeley, Cal.; Charles A. Wagner, Iola; Topeka, September, 1918.
Kansas Association of Teachers of English: Carmie S. Wolfe, 1360 Garfield St., Topeka; Charlotte M. Leavitt, Washburn College, Topeka; Topeka, Salina, Wichita, Pittsburg, and Kansas City, November 7–8, 1918.
Kansas History Teachers' Association: Mary A. Whitney, State Normal School, Emporia; Marian Wood, Lawrence; Topeka, November, 1918.
Kansas Manual Arts Association: W. L. Friley, Independence; W. B. Miller, Lawrence; Topeka, Pittsburg, Wichita, and Salina, November 6–7, 1918.
Kansas State Domestic Science Association: President, Elizabeth Agurn, Hays Normal School, Hays.
Kansas State Kindergarten Association: Anne Bingham, Emporia; Ruth Scott, Enterprise; Topeka, November 7–9, 1918.
Kansas State Teachers' Association: J. O. Hall, Hutchinson; F. L. Pinet, Topeka; Topeka, Pittsburg, Wichita, and Salina, November 7–9, 1918.

Kentucky:
Association of Kentucky Colleges and Universities: F. L. McVey, Lexington; Frank L. Rainey, Danville; Lexington, December 7, 1918.
Kentucky Educational Association: Orville Stivers, Louisville; R. E. Williams, Louisville; Louisville, April, 1919.
Kentucky Home Economics Association: Bertha H. Tarrant, 618 Floral Terrace, Louisville; Elsie Speck, Paducah.
Kentucky Music Teachers' Association: Anna C. Goff, Lexington; Flora M. Bertelle, 734 Fourth Ave., Louisville; Louisville.

Louisiana:
Louisiana Conference of Parish School Board Members and Superintendents: T. H. Harris, Baton Rouge; J. H. Bres, Port Allen.
Louisiana Council of Education: A. B. Dinwiddie, Station 20, New Orleans; G. C. Huckaby, Baton Rouge.
Louisiana State Association of English Teachers: A. G. Reed, Baton Rouge; Mary M. Elmore, Alexandria; New Orleans, April, 1919.
Louisiana Teachers' Association: A. J. Caldwell, Shreveport; L. J. Alleman, Lafayette; New Orleans, April, 1919.

Maine:
Maine Council of Teachers of English: William H. Coleman, Lewiston; Edna M. Cornforth, Auburn; Portland, October, 1918.
Maine Teachers' Association: Bertram E. Packard, Camden; Glenn W. Starkey, Augusta.

Maryland:
Maryland Council of Teachers of English: W. H. Wilcox, 6235 York Road, Baltimore; Andrew H. Krug, Baltimore City College, Baltimore; Baltimore, Thanksgiving week, 1918.
Maryland High School Teachers' Association: Charles G. Myers, Rockville; John L. Sigmund, Frederick; Baltimore.
Maryland History Teachers' Association: J. H. Latané, Johns Hopkins University, Baltimore; Laura J. Cairnes, 1216 West Fayette St., Baltimore.
Maryland State Teachers' Association: Nicholas Orem, Easton; Hugh W. Caldwell, Chesapeake City; Baltimore, November 29–30, 1918.

Massachusetts:
Association of Principals and Teachers of Massachusetts State Normal Schools: President, John G. Thompson, Fitchburg; Miss M. H. Bishop, 28 Windsor St., Worcester.
Harvard Teachers' Association: William B. Snow, English High School, Boston; Henry W. Holmes, Harvard University, Cambridge; Cambridge, March, 1919.
High School Masters' Club of Massachusetts: Charles T. Woodbury, Fitchburg; John W. Hutchins, High School, Malden; Boston, March, 1919.
Massachusetts Association of School Superintendents: Clarence H. Dempsey, Haverhill; Frank C. Johnson, Ayer; probably Boston, fall, 1918.
Massachusetts Public School Janitors' Association: Charles H. Evers, Worcester; Wallace C. Tilton, New Bedford; Springfield, July, 1919.
Massachusetts Schoolmasters' Club: Payson Smith, State House, Boston; Leonard M. Patton, Milton; Boston, probably October 19, 1918.
Massachusetts Teachers' Association: J. F. McDuffee, Springfield; B. C. Merry, Needham; Boston, October, 1918.
Massachusetts Teachers' Federation: Henry H. Harris, Lowell; Ernst Makechnie, West Somerville; Cambridge, October 19, 1918.
Tufts College Teachers' Association: Charles W. Parmenter, Cambridge; Edwin A. Shaw, West Somerville; Tufts College, October, 1918.

Michigan:
Michigan Association of School Superintendents and School Board Members: J. W. Sexton, Lansing; H. C. Daley, 131 Elmhurst Ave., Detroit; Ann Arbor, Spring, 1919.
Michigan Home Economics Association: Georgia L. White, East Lansing; Alice Cimmer, Battle Creek; Detroit, October 30–November 1, 1918.
Michigan Industrial Arts and Science Association: Albert Holms, Kalamazoo; Walter Wheater, Kalamazoo; Kalamazoo, October, 1918.
Michigan Schoolmasters' Club: E. O. Marsh, Jackson; Louis P. Jocelyn, 545 South Division St., Ann Arbor; Ann Arbor, March, 1919.
Michigan State Federation of Teachers' Clubs: Edwin L. Miller, Detroit; Lila M. Fyan, Northeastern High School, Detroit; Detroit, October 31–November 1, 1918.
Michigan State Teachers' Association: H. H. Lowry, Ionia; John P. Everett, 903 West South St., Kalamazoo; Detroit, October 31–November 1, 1918.
Upper Peninsula Educational Association: H. D. Lee, Hancock; Gilbert L. Brown, Marquette; Marquette, October 9–11, 1918.

Minnesota:
Minnesota Educational Association: E. A. Freeman, Grand Rapids; W. H. Shephard, North High School, Minneapolis.
Minnesota Educational Association of School Board Members: Mrs. H. Witherstine, Rochester; W. J. Rashleigh, Aurora; St. Paul or Minneapolis, 1918.
Minnesota Home Economics Association: Leila Gerry, 2119 Russell Ave., Minneapolis; Lucy E. Von Rohr, Hotel Hastings, Minneapolis.
Minnesota Music Teachers' Association: G. H. Fairclough, 802 Pittsburgh Building, St. Paul; John A. Jaeger, 1648 Blair St., St. Paul; June 24–26, 1919.
Scandinavian Language Teachers' Association of Twin Cities: Victor L. Erickson, 3328 16th Ave., South, Minneapolis; Inga Bredesen, 307 West 15th St., Minneapolis; September 28, 1918.

Mississippi:
Mississippi Classical Association: Lucile Scott, Yazoo City: Clara Stokes, Gloster; Jackson, April 26, 1919.
Mississippi Teachers' Association: H. B. Heidelberg, Clarksdale; H. L. McCleskey, Hattiesburg; May, 1919.

Missouri:
Missouri College Union: A. Ross Hill, Columbia; T. Berry Smith, Fayette; Columbia, November 5–6, 1918.
Missouri Negro Teachers' Association: R. H. Cole, 4210 West Belle Place, St. Louis; C. G. Williams, Boonville; St. Louis, November 7–9, 1918.
Missouri Society of Teachers of English: V. C. Coulter, Warrensburg; Dorothy Kaucher, Central High School, St. Joseph; St. Louis, November 8, 1918.
Missouri Society of Teachers of History and Government: W. S. Harmon, Westport High School, Kansas City; J. E. Wrench, 1104 Hudson Ave., Columbia; St. Louis, November, 1918.
Missouri Society of Teachers of Mathematics and Science: O. M. Stewart, Columbia; B. F. Finkel, Springfield; St. Louis, November 7–9, 1918.
Missouri State Teachers' Association: Miss T. C. Gecks, Board of Education, St. Louis; E. M. Carter, Columbia; St. Louis, November 7–9, 1918.

Montana:
Montana State Council of English Teachers: B. E. Millikin; Butte; E. J. Parkin, Bozeman.
Montana State Teachers' Association: J. E. Monroe, Dillon; H. H. Swain; Helena; Helena, November 25–27, 1918.

Nebraska:
Nebraska History Teachers' Association: J. G. W. Lewis, Wayne; Clark E. Persinger, Table Rock; Omaha, November 6–7, 1918.
Nebraska Home Economics Association: Mrs. H. G. Gramlich, Lincoln; Maud Wilson, University Farm, Lincoln; Lincoln, January, 1919.
Nebraska Schoolmasters' Club: J. F. Beveridge, Omaha; H. E. Bradford, State Farm School, Lincoln; Lincoln, October, 1918.
Nebraska State Teachers' Association: F. M. Gregg, Peru; H. O. Sutton, Kearney; Omaha, December 26–28, 1918.
Nebraska Woman's Education Association: Etta Smith, 6118 Florence Blvd., Omaha; Omaha, Margaret Delpsch, Comenius School, Omaha; November, 1918.

Nevada:
Nevada State Educational Association: B. D. Billinghurst, Reno; Maude Frazier, Goldfield; Reno, December, 1918.

New Hampshire:
New Hampshire Practical Arts Club: L. E. Ryder, Manchester; Josephine Emery, Laconia; with New Hampshire State Teachers' Association.
New Hampshire State Kindergarten Association: Mabel Currier, Portsmouth; Helen Gibbs, Concord; Concord, October, 1918.
New Hampshire State Teachers' Association: F. V. Landman, Wolfeboro; Inez Vaughan, Keene; Concord, October 18, 1918.

New Jersey:
Alliance of New Jersey Women Teachers: Elizabeth A. Allen, 70 Hudson St., Hoboken; Mrs. Caroline B. Lowe, 171 Jefferson St., Passaic.
Association of Teachers of English of New Jersey: Charles G. Osgood, Princeton; L. E. French, High School, Atlantic City; November 16, 1918.
Council of Education of the State of New Jersey: Don C. Bliss, Montclair; J. Howard Hulsart, Dover; probably Newark, October 25–26, 1918.
New Jersey Science Teachers' Association: Earl Eastman, High School, Atlantic City; Carl J. Hunkins, South Side High School, Newark; probably October, 1918.
New Jersey State Teachers' Association: Henry M. Cressman, Egg Harbor City; H. J. Neal, Phillipsburg; Atlantic City, December 26–28, 1918.
Vocational Arts Association of New Jersey: Hugo B. Froehlich, Newark; James E. Gaffney, Atlantic City.

New Mexico:
New Mexico Association for Science: John D. Clark, Albuquerque; L. A. Higley, State College; Albuquerque, November 25–27, 1918.
New Mexico Educational Association: Isabel Lancaster Eckles, Silver City; John Milne, Albuquerque; Albuquerque, November 23–27, 1918.

New York:
Agricultural Teachers and Principals' Association: H. B. Allen, Westfield; Garland A. Bricker, Syracuse University, Syracuse; Syracuse, December 26–27, 1918.
Associated Academic Principals: Harry W. Rockwell, Pelham Manor; Edward P. Smith, North Tonawanda; Syracuse, December 26–28, 1918.

New York—Continued.
Association of Colleges in the State of New York: Boothe C. Davis, Alfred; Augustus S. Downing, Education Building, Albany; Albany.
New York State Association of District Superintendents: George H. Covey, Katonah; Cora V. Luttenton, Albion; Schenectady, November, 1918.
New York State Association of English Teachers: A. B. Sias, Rochester; Edwin B. Richards, Central High School, Syracuse; Albany, November 27–28, 1918.
New York State Council of City School Superintendents: S. R. Shear, Poughkeepsie; George M. Elmendorf, Herkimer; Binghamton, October, 1918.
New York State Council of Elementary School Principals and Teachers: Nathaniel G. West, Rochester; Mary L. Ludwig, 502 Hickory Street, Buffalo; Albany, November 25–27, 1918.
New York State History Teachers' Association: Edward P. Smith, North Tonawanda; Clarence L. Hewitt, Central High School, Syracuse; Albany, November 26, 1917.
New York State Modern Language Association: J. B. E. Jonas, DeWitt Clinton High School, New York City; Arthur G. Host, Troy High School, Troy; Albany, November 26–27, 1918.
New York State School Hygiene Association: Lawrence S. Hill, 815 Myrtle Ave., Albany; Edith Walker, Board of Education, Albany; Binghamton, November 25–27, 1918.
New York State Science Teachers' Association: Harry A. Carpenter, Chevy Chase, D. C.; Edward E. Ford, West High School, Rochester; Albany, November 25–27, 1918.
New York State Teachers' Association: H. S. Weet, Rochester; Richard A. Searing, North Tonawanda; Albany, November 25–27, 1918.

North Carolina:
Modern Language Association of North Carolina: Hinda Hill, State Normal College, Greensboro; Annie Beam, Shelby; Raleigh, November 28, 1918.
North Carolina Association of City Superintendents: Harry Harding, Charlotte; Hoy Taylor, Greenville; Raleigh, November, 1918.
North Carolina Association of Geography Teachers: President, Collier Cobb, Chapel Hill.
North Carolina Sunday School Association: G. T. Stephenson, Winston-Salem; J. Walter Long, Greensboro; Greensboro, November, 1918.
North Carolina Teachers' Assembly: N. W. Walker, Chapel Hill; E. E. Sams, Raleigh.

North Dakota:
City Superintendents' Association of North Dakota: P. S. Berg, Dickinson; Nelson Sauvain, Devils Lake; Minot, November 4–5, 1918.
North Dakota Association of English Teachers: Julia McDonough, Minot; Hilda Taylor, Jamestown; Minot, October, 1918, with the North Dakota Educational Association.
North Dakota Council of Geography Teachers: Jesse E. Switzer, Valley City; Huldah L. Winsted, State Normal School, Minot; Minot, November, 1918.
North Dakota Educational Association: R. M. Black, Ellendale; W. E. Parsons, Bismarck; Minot, November 6–8, 1918.

Ohio:
Association of Ohio Teachers of Mathematics and Science: J. D. Boldt, Dayton; H. M. Beatty, High School, Newark; Columbus, April, 1919.
Conference of Ohio College Presidents and Deans: Parke R. Kolbe, Akron; Mary I. Park, Heidelberg University, Tiffin.
Ohio Association of English Teachers: C. E. Thomas, 1924 Delaware Avenue, Norwood; Ethel M. Parmenter, East Technical High School, Cleveland; Columbus, Christmas holidays, 1918.
Ohio College Association: C. W. Chamberlain, Denison University, Granville; T. B. Birch, Wittenberg College, Springfield; Columbus, April 18–19, 1919.
Ohio History Teachers' Association: Kenneth S. Latourette, Granville; Carl Wittke, Ohio State University, Columbus.
Ohio Home Economics Teachers' Association: Mary Parker, Cleveland; Mary Tough, Ohio University, Athens; Columbus, November, 1918.
Ohio Industrial Arts Teachers' Association: J. W. Moyer, Sandusky; Roy Jenkins, Wapakoneta; Columbus, December 25, 1918–January 1, 1919.
Ohio School Improvement Federation: F. A. Derthick, Mantua; W. N. Beetham, Wellsburg, W. Va.; Columbus, Christmas holidays, 1918.
Ohio Society of College and University Teachers of Education: Edward A. Miller, Oberlin College, Oberlin; Arthur R. Mead, Ohio Wesleyan University, Delaware; Columbus, Easter, 1919.
Ohio State Association of School Board Members: R. G. Ingleson, Avon Lake; W. J. Knight, Urbana; Columbus, February, 1919.
Ohio State Teachers' Association: A. C. Eldredge, Cleveland; F. E. Reynolds, Wapakoneta; Columbus, December 26–28, 1918.

Oklahoma:
Oklahoma Council of Teachers of English: F. C. Oakes, Edmond; Nellie J. McFerron, Ardmore; Oklahoma City, November 28, 1918.
Oklahoma Educational Association: B. F. Nihart, Oklahoma City; Mary D. Couch, Oklahoma City; Oklahoma City, November 28–30, 1918.
Oklahoma History Teachers' Association: E. E. Dale, Norman; C. W. Turner, Oklahoma City; Oklahoma City, November 27–30, 1918.
Oklahoma Home Economics Association: Miss Kimball, Tulsa; Harriet Hopkins, Norman; Oklahoma City, November 29–30, 1918.

Oregon:
Oregon Council of Teachers of English: Mary H. Perkins, University of Oregon, Eugene; Rosa B. Parrott, Oregon Normal School, Monmouth; Portland, December 27–28, 1918.
Oregon Science and Mathematics Teachers' Association: F. L. Griffin, Portland; E. L. Keezel, University of Oregon, Eugene; Portland, December 26–28, 1918.
Oregon State Teachers' Association: H. D. Sheldon, Eugene; E. D. Ressler, Corvallis; Portland, December 30, 1918–January 1, 1919.

Pennsylvania:
Association of School Board Secretaries of Pennsylvania: W. T. Norton, McKeesport; C. M. Piper, Altoona; Harrisburg, February 5, 1919.
Pennsylvania Schoolmasters' Club: H. W. Golden, Pittsburgh; Charles W. Shaffer, Wilmerding; Pittsburgh.
Pennsylvania State Educational Association: S. E. Weber, Scranton; J. P. McCaskey, Lancaster; Harrisburg, December 29, 1918–January 1, 1919.
Pennsylvania State School Directors' Association: W. G. Davis, McKeesport; D. D. Hammelbaugh, 121–123 Chestnut St., Harrisburg; Harrisburg, February 6–7, 1919.
Public Education and Child Labor Association of Pennsylvania, 1015 Witherspoon Building, Philadelphia: Franklin N. Brewer; B. M. Watson.

Rhode Island:
- Rhode Island History Teachers' Association: John C. Swift, Providence; A. Howard Williamson, 5 Judkins St., Rumford; Providence, probably October 19, 1918.
- Rhode Island Institute of Instruction: John L. Alger, Providence; M. Davitt Carroll, 76 Beaufort St., Providence; Spring, 1919.

South Carolina:
- Association of Colleges of South Carolina: H. N. Snyder, Wofford College, Spartanburg; L. T. Baker, University of South Carolina, Columbia; Columbia, March, 1919.
- South Carolina Association of Elementary Schools: Lottie Olney, Charleston; Mrs. John Hargrave, Dillon.
- South Carolina Home Economics Association: Mary B. McGowan, Commercial Club, Nashville, Tenn.; Lois C. Erwin, Spartanburg.
- South Carolina School Improvement Association: Madeleine Spigener, Columbia; Mary Eva Hite, Batesburg; Columbia, probably April 15, 1919.
- South Carolina State Colored Teachers' Association: R. S. Wilkinson, Orangeburg; I. M. A. Myers, Manning; Orangeburg, July, 1919.
- South Carolina State Teachers' Association: J. P. Kinard, Rock Hill; R. C. Burts, Rock Hill; March, 1919.

South Dakota:
- South Dakota Commercial Teachers' Association: P. A. Cooley, Mitchell; Etha Burnham, Aberdeen; Mitchell, November 25–27, 1918.
- South Dakota Educational Association: Harry M. Gage, Huron; A. H. Seymour, Aberdeen; Mitchell, November 25–27, 1918.
- South Dakota History Teacher's Association: Bruce McVay, De Smet; Edwin Ott, 812 South Prairie Ave., Sioux Falls; Mitchell, November 27–29, 1918.

Tennessee:
- Tennessee History Teachers' Association: A. Max Souby, Murfreesboro; Mabel Jones, 1713 Hayes St., Nashville.
- Tennessee State Public School Officers' Association: J. M. Hatfield, Cookeville; Claude J. Bell, Nashville; Nashville, January 14–16, 1919.
- Tennessee State Teachers' Association: R. L. Jones, Murfreesboro; Perry L. Harned, Clarksville.

Texas:
- Conference for Education in Texas: President, Pat M. Neff, Waco; Ft. Worth, November, 1918.
- Home Economics Association of Texas: Grace Berry Smith, San Marcos; Miss Palmer R. Ellsberry, Dallas; Dallas, November, 1918.
- Texas State Teachers' Association: W. B. Bizzell, College Station; R. T. Ellis, 2933 Lipscomb St., Fort Worth; Dallas, November 28–30, 1918.
- Texas State Teachers' Association (colored): C. F. Carr, Palestine; T. K. Price, Mexia; Palestine, November 28–30, 1918.

Utah:
- Utah Educational Association: John A. Widtsoe, University of Utah, Salt Lake City; J. Challen Smith, 968 Lake St., Salt Lake City; Salt Lake City, January 1–3, 1919.
- Utah Home Economics Association: Alice Ravenhill, Logan; Hortense White, Logan; Salt Lake City.

Vermont:
- Vermont Schoolmasters' Club: President, S. C. Hutchinson, Montpelier.
- Vermont State Teachers' Association: Margaret Kelley, Derby; Florence Wellman, Brattleboro; Montpelier, November 6–8, 1918.
- Vermont Women Teachers' Club: Elizabeth Isham, Burlington; Ella Ferrin, Castleton; Montpelier, October, 1918.

Virginia:
- Association of Virginia Colleges: J. A. Morehead, Salem; Charles G. Maphis, University; Richmond, February, 1919.
- Cooperative Education Association of Virginia: Mrs. B. B. Munford, 503 East Grace St., Richmond; J. H. Montgomery, Davis Building, Richmond; Richmond, November, 1918.
- Public School Trustees Association of Virginia: F. T. Briggs, Portsmouth; M. F. McGehee, Keysville; Richmond, November, 1918.
- State Educational Conference: J. A. C. Hurt, Wytheville; H. S. Hooke, Roanoke; Radford, March, 1919.
- Virginia Association of Colleges and Schools for Girls: Mrs. May Willis, Chatham; Mary S. Gammon, 1110 Capitol St., Richmond; Richmond.
- Virginia English Teachers' Association: R. E. Blackwell, Ashland; James M. Grainger, State Normal School, Farmville; Richmond, November 28–30, 1918.
- Virginia Society for the Study of Education: J. P. McConnell, East Radford; R. T. Kerlin, Lexington; Richmond, November 27–28, 1918.
- Virginia State Primary Teachers' Association: Blanche Bulifant, East Radford; Julia Ingles, Radford; Richmond, about November 30, 1918.
- Virginia State Teachers' Association: J. A. C. Chandler, Richmond; W. C. Blakey, Richmond; Richmond, Thanksgiving week, 1918.

Washington:
- Puget Sound English Masters' Club: G. W. Saunderson, Lincoln High School, Seattle; E. H. Butler, Washington School, Tacoma; probably Tacoma, November, 1918.
- Puget Sound Schoolmasters' Club: W. Q. Osborn, Tacoma; Frank Farrar, 6725 24th Ave., N. W., Seattle; Tacoma, probably November 16, 1918.
- Washington Educational Association: Almina George, Seattle; O. C. Whitney, 818 North Adams St., Tacoma.
- Washington State Home Economics Association: Anna Post, Tacoma; Agnes Allen, Tacoma.

West Virginia:
- Vocational Teachers' Association of West Virginia: W. G. Carpenter, Wheeling; W. W. Keyior, Wheeling; Wheeling, November 27–30, 1918.
- West Virginia Council of Teachers of English: Walter Barnes, Fairmont; Mary M. Atkeson, Morgantown; October, 1918.
- West Virginia Education Association: Waitman Barbe, Morgantown; H. W. McDowell, Moundsville; Wheeling, November 27–29, 1918.
- West Virginia History Teachers' Association: J. H. Thornton, Charleston; Dora L. Newman, Fairmont; Wheeling, Thanksgiving week, 1918.
- West Virginia Home Economics and Manual Arts Association: Rachel H. Colwell, West Virginia University, Morgantown; Nellie Woods, Shepherd College, Shepherdstown.
- West Virginia State Teachers' Association: A. W. Curtis, Institute; C. Ruth Campbell, Institute; Huntington, November 28–29, 1918.

Wisconsin:
Wisconsin Agricultural Education Association: John James, Madison; Warren W. Clark, River Falls; Madison.
Wisconsin Association of Mathematics Teachers: I. N. Warner, Platteville; Walter W. Hart, University of Wisconsin, Madison; Milwaukee.
Wisconsin Association of Modern Foreign Language Teachers: Barry Cerf, Madison; J. D. Deihl, 2137 Keyes Ave., Madison.
Wisconsin Association of Vocational School Directors: E. E. Gunn, jr., Green Bay; A. R. Graham, Racine; Milwaukee, November 2–3, 1918.
Wisconsin History Teachers' Association: William H. Cheever, Milwaukee Normal School, Milwaukee; Amelia C. Ford, Milwaukee-Downer College, Milwaukee; Milwaukee, November 7–8, 1918.
Wisconsin Music Teachers' Association: Charles H. Mills, University of Wisconsin, Madison; Ella Fink, Milwaukee; Madison, May, 1919.
Wisconsin Physical Education Society: Walter Wittich, La Crosse; Robert Nohr, La Crosse Normal School, La Crosse; Milwaukee, November 7–9, 1918.
Wisconsin Superintendents' and Supervising Principals' Association: P. J. Zimmers, Manitowoc; F. P. Young, Appleton; Madison, October 4–5, 1918.
Wisconsin Teachers' Association: M. N. McIver, Oshkosh; M. A. Bussewitz, 435 Kenwood Boulevard, Milwaukee; Milwaukee, November 7–9, 1918.

Wyoming:
Wyoming State Teachers' Association: Joseph E. Burch, Kemmerer; Mrs. Nellie L. Wales, Thermopolis; Lander, probably Thanksgiving week, 1918.

3. *City.*

Association of Women Principals of Public Schools of New York City: Jessie B. Colburn, 8 West 103d St.; Loretto M. Rochester, 845 Lexington Ave.; September 30, 1918.
Boston Principals' Association: Charles W. Parmenter, Cambridge; Joshua Q. Litchfield, Brookline.
Boston Teachers' Club: Cora E. Bigelow, 36 Hancock St.; Caroline E. Nutter, 125 Lexington St., East Boston.
Brooklyn Teachers' Association: Isabelle A. Ennis, Public School 27; Mary E. Hamilton, Public School 27.
Chicago Principals' Club: Chester C. Dodge, 5 South Wabash Ave.; James E. McDade, 5 South Wabash Ave.; September 21, 1918.
Chicago Teachers' Federation: Ida L. M. Fursman, 4465 North Kildare Ave.; Frances E. Harden, 1543 Sherwin Ave.; September 14, 1918.
Cincinnati Schoolmasters' Club: Walter Peoples, 4631 Glenshade Ave.; M. R. McElroy, 6100 Prentice St.; September 14, 1918.
Denver Teachers' Club: Alwyn C. Smith, 1130 York St.; Edith Weymouth, Hotel West.
Detroit Teachers' Association: Rachel McKinney, 138 Stanton Ave.; Alice V. Guysi, 50 Broadway; September 30, 1918.
Educational Society of Baltimore: Edward F. Buchner, Johns Hopkins University; Andrew J. Krug, Baltimore City College; October 9, 1918.
Elementary Teachers' Association (Baltimore): Laura W. Manister, 600 18th St.; Nellie H. Cromwell, 430 North Carey St.; October 7, 1918.
Federation of Teachers' Associations of the City of New York: John W. Rafferty, 1492 Pacific St., Brooklyn; Olive M. Jones, Public School 120.
High School Teachers' Association of New York City: Clyde Jefford, Boys' High School, Brooklyn; Bertha R. Courtney, Long Island City.
Interborough Association of Women Teachers (New York City): Grace C. Strachan-Forsythe, 1710 Avenue I, Brooklyn; Lillian I. Powers, 56 Macon St., Brooklyn; October, 1918.
Los Angeles City Teachers' Club: Wilhelmina Van de Goorberg, 202 Trinity Bldg.; Zoe McClure, 4937 Lynn St.
Los Angeles High School Teachers' Association: C. A. Wheeler; A. E. Couch.
Louisville (Ky.) Educational Association: E. P. Chapin, Boys' High School; Elise Weibel, Emerson School.
New Haven Teachers' League: Carolyn Merchant, 145 Lenox St.; Helen L. Gilbert, West Haven; September 23, 1918.
New York Academy of Public Education: William L. Felter, Girls' High School, Brooklyn; Samuel B. Heckman, College of the City of New York; November, 1918.
New York City Association of Teachers of English: Dudley H. Miles, Evander Childs High School; William P. Wharton, High School of Commerce.
New York Montessori Association: Raymond P. Holden, 323 Riverside Drive; Ralph Albertson, 16 Horatio St.
New York Schoolmasters' Club: Edward W. Stitt, 500 Park Ave.; Matthew D. Quinn, 101 East 92d St.; October 12, 1918.
New York Society for the Experimental Study of Education: William E. Grady, Brooklyn; J. Carleton Bell, Brooklyn Training School for Teachers, Brooklyn.
Oakland Teachers' Association: Philip M. Fisher, 431 Orange St.; Lulu A. Shelton, 549 62d St.
Philadelphia Teachers' Association: J. Eugene Baker, 13th and Spring Garden St.; Emily M. Renshaw, 2321 Wharton St.; September 16, 1918.
Pittsburgh Teachers' Association: Clara F. McMillen, 347 South Atlantic Ave.; Ida Gealey, 721 Whitney Ave., Wilkinsburg, Pa.; September 10, 1918.
Portland (Oreg.) Grade Teachers' Association: Harriet Thayer, 201 14th St.; Louise Kelly, 733 Washington St.; September 19, 1918.
Public Education Association of Buffalo: Henry G. Breed, jr., 111 Swan St.; William P. Haines, White Bldg.
Public Education Association of Chicago: Allen B. Pond, 64 East Van Buren St.; Glen Edwards, 5486 Blackstone Ave.; May, 1919.
Public Education Association of Philadelphia: Franklin N. Brewer, The Wanamaker Store; Jane R. Harper, acting, 1015 Witherspoon Building.
Public Education Association of the City of New York: Charles P. Howland, 8 West 40th St.; Howard W. Nudd, 8 West 40th St.
Public School Teachers' Association of Baltimore: Charles J. Koch, Madison and Lafayette Ave.; Minnie Daugherty, 637 West North Ave.; October 14, 1918.
Public School Teachers' Association of Providence, R. I.: Frank A. Spratt, 276 Washington Ave.; Mary C. Dunn, 127 Vinton St.
Richmond Teachers' League: Bessie P. Taylor; W. H. Magee, 714 Noble Ave.; October 25, 1918.
San Francisco Grade Teachers' Association: Edna Cotrel, 3240 Clay St.; Kathryn Cooney, 1350 Washington St., December, 1918.
Schoolmasters' Association of New York and Vicinity: Eugene C. Alder, Adelphi Academy, Brooklyn; Frank S. Hackett, River lale-on-Hudson, New York City; New York City, October 18, 1918.
Schoolmen's Club of Philadelphia: Alfred V. Sayre, Southwark School; Walter G. McMullin, 1028 Filmore St.

Teachers' Council (New York City): William J. McAuliffe, 2683 Briggs Ave.; Agnes M. Marshall, 541 Eastern Parkway, Brooklyn; September 20, 1918.
Utica (New York) Teachers' Association: Bessie J. Rendell, 1517 Sunset Ave.; Luella J. Thomas, 423 Court St.; September, 1918.

XXXIX.—Learned and Civic Organizations.

The following list shows, first, the name of the organization; second, the name and address of the president; third, the name and address of the secretary; fourth, the place and date of the next meeting.

American Academy of Arts and Letters: William D. Howells, 347 Madison Ave., New York, N. Y.; Robert U. Johnson, 347 Madison Ave., New York, N. Y.; New York, N. Y., November 20, 1918.
American Academy of Medicine: J. E. Tuckerman, 733 Osborne Building, Cleveland, Ohio; Thomas Wray Grayson, 52 North Fourth St., Easton, Pa.; Atlantic City, N. J., June 9–10, 1919.
American Academy of Political and Social Science: Leo S. Rowe, University of Pennsylvania, Philadelphia, Pa.; J. P. Lichtenberger, 4024 Spruce St., Philadelphia, Pa.; Philadelphia, Pa., April, 1919.
American Association for Labor Legislation: Samuel McCune Lindsay, Columbia University, New York, N. Y.; John B. Andrews, 131 East 23d St., New York, N. Y.; Cleveland, Ohio, December 26–28, 1918.
American Association for the Advancement of Science: John Merle Coulter, University of Chicago, Chicago, Ill.; L. O. Howard, Smithsonian Institution, Washington, D. C.; Baltimore, Md., December 27–31, 1918.
American Association for the Study and Prevention of Infant Mortality: Mrs. William L. Putnam, 49 Beacon St., Boston, Mass.; Gertrude B. Knipp, 1211 Cathedral St., Baltimore, Md.; Asheville, N. C., November 11–14, 1918.
American Association of Museums: Vice-president, W. P. Wilson, Commercial Museum, Philadelphia, Pa.; Harold L. Madison, Park Museum, Providence, R. I.; about May 20, 1919.
American Chemical Society: William H. Nichols, 25 Broad St., New York, N. Y.; Charles L. Parsons, Box 505, Washington, D. C.; Cleveland, Ohio, September 10–13, 1918.
American Civic Association: J. Horace McFarland, Harrisburg, Pa.; E. E. Marshall, acting, 914 Union Trust Building, Washington, D. C.
American Economic Association: Irving Fisher, New Haven, Conn.; Allyn A. Young, Cornell University, Ithaca, N. Y.; Cleveland, Ohio, December 28–31, 1918.
American Forestry Association: Charles L. Pack, Lakewood, N. J.; Percival S. Ridsdale, 1410 H St., N. W., Washington, D. C.
American Genetic Association: David Fairchild, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.; George M. Rommel, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C.
American Geographical Society: John Greenough, Broadway and 156th St., New York, N. Y.; Isaiah Bowman, Broadway and 156th St., New York, N. Y.; New York, N. Y., November 21, 1918.
American Historical Association: William R. Thayer, Cambridge, Mass.; W. G. Leland, 1140 Woodward Building, Washington, D. C.; Cleveland, Ohio, probably December 30–31, 1918.
American Institute of Social Service: Mornay Williams, Englewood, N. J.; Rudolph M. Binder, New York University, New York, N. Y.; New York, N. Y., October 15, 1918.
American Library Association: W. W. Bishop, University of Michigan, Ann Arbor, Mich.; George B. Utley, 78 East Washington St., Chicago, Ill.
American Mathematical Society: L. E. Dickson, 5535 University Ave., Chicago, Ill.; F. N. Cole, Columbia University, New York, N. Y.; Hanover, N. H., September 4–6, 1918.
American Medical Association: Arthur D. Bevan, 122 South Michigan Blvd., Chicago, Ill.; Alexander R. Craig, 535 North Dearborn St., Chicago, Ill.; Atlantic City, N. J., probably June, 1919.
American Philological Association: Frank F. Abbott, Princeton University, Princeton, N. J.; Clarence C. Bill, Western Reserve University, Cleveland, Ohio; New York, N. Y., December 26–28, 1918.
American Philosophical Association: Mary W. Calkins, Wellesley College, Mass.; H. O. Overstreet, College of the City of New York, New York, N. Y.; December, 1918.
American Philosophical Society: William B. Scott, Princeton, N. J.; I. Minis Hays, 104 South 5th St., Philadelphia, Pa.; Philadelphia, Pa., April, 1919.
American Political Science Association: Henry J. Ford, Princeton University, Princeton, N. J.; Chester Lloyd Jones, University of Wisconsin, Madison, Wis.; Cleveland, Ohio, December 26–28, 1918.
American Psychological Association: J. W. Baird, Worcester, Mass.; H. S. Langfeld, Harvard University, Cambridge, Mass.
American Public Health Association: Charles J. Hastings, Municipal Building, Toronto, Canada; A. W. Hedrick, 126 Massachusetts Ave., Boston, Mass.; Chicago, Ill., October 14–17, 1918.
American Social Hygiene Association: William H. Welch, Baltimore, Md.; Donald R. Hooker, Roland Park, Md.; probably Washington, D. C., October, 1918.
American Social Science Association: George G. Battle, 37 Wall St., New York, N. Y.; James B. Townsend, 15 East 40th St., New York, N. Y.; New York, N. Y., January 19, 1919.
American Society for Thrift: S. W. Straus, 150 Broadway, New York, N. Y.; Henry R. Daniel, 220 West 42d St., New York, N. Y.
American Sociological Society: Charles H. Cooley, University of Michigan, Ann Arbor, Mich.; Scott E. W. Bedford, University of Chicago, Chicago, Ill.; Richmond, Va., December 27–28; 1918.
American Statistical Association: Wesley C. Mitchell, 15 North Washington Square, New York, N. Y.; Robert E. Chaddock, Columbia University, New York, N. Y.; Cleveland, Ohio, December, 1918.
Association of American Geographers: Nevin M. Fenneman, University of Cincinnati, Cincinnati, Ohio; O. L. Fassig, Baltimore, Md.; Baltimore, Md., December 30–31, 1918.
Botanical Society of America: William Trelease, University of Illinois, Urbana, Ill.; J. R. Schramm, Cornell University, Ithaca, N. Y.; Baltimore, Md., December 27–31, 1918.
Child Conservation League of America: Winfield S. Hall, Berwyn, Ill.; Mrs. Minnette C. Hair, Woman's Temple, Chicago, Ill.; Chicago, Ill., March 13, 1919.
Geological Society of America: Whitman Cross, Washington, D. C.; Edmund Otis Hovey, American Museum of Natural History, New York, N. Y.; Baltimore, Md., December 27–30, 1918.
Jewish Agricultural and Industrial Aid Society: Alfred Jaretzki, 174 2d Ave., New York, N. Y.; Cyrus L. Sulzberger, 174 2d Ave., New York, N. Y.; New York, N. Y., February, 1919.
Mathematical Association of America: E. V. Huntington, Harvard University, Cambridge, Mass.; W. D. Cairns, Oberlin, Ohio; Hanover, N. H., September 6–7, 1918.
Modern Language Association of America: Edward C. Armstrong, Princeton University, Princeton, N. J.; William G. Howard, Harvard University, Cambridge, Mass.; Poughkeepsie, N. Y., December 26–28, 1918.
National Academy of Sciences: Charles D. Walcott, Smithsonian Institution, Washington, D. C.; Arthur L. Day, Smithsonian Institution, Washington, D. C.; Baltimore, Md., November, 1918.

National Agricultural Society: Howard R. Smith, Chicago, Ill.; Robert Scoville, 2 West 45th St., New York, N. Y.; New York, N. Y., April, 1919.
National Board for Historical Service: Secretary, Waldo G. Leland, 1133 Woodward Building, Washington, D. C.
National Civic Federation: V. Everit Macy, 68 Broad St., New York, N. Y.; D. L. Cease, American Trust Building, Cleveland, Ohio.
National Conference of Social Work: Julia Lathrop, Washington, D. C.; William T. Cross, 315 Plymouth Court, Chicago, Ill.; Atlantic City, N. J., May or June, 1919.
National Economic League: William Howard Taft, New Haven, Conn.; J. W. Beatson, 6 Beacon St., Boston, Mass.
National Efficiency Society, 119 West 40th St., New York, N. Y.: Melvil Dewey; Charles Dexter Allen.
National Forward to Land League: T. N. Carver, Cambridge, Mass.; Haviland H. Lund, Hotel Albert, New York, N. Y.; New York, N. Y., November 1, 1918.
National Geographic Society: Gilbert Grosvenor, Washington, D. C.; O. P. Austin, Hubbard Memorial Hall, Washington, D. C.; Washington, D. C., January 10, 1919.
National Institute of Arts and Letters: Augustus Thomas, 60 East 56th St.,New York, N. Y.; Ashley Thorndike, Columbia University, New York, N. Y.; New York, N. Y., November or December, 1918.
National Institute of Social Sciences: Emory R. Johnson, University of Pennsylvania, Philadelphia, Pa.; Thomas P. Harris, 36th St. and Woodland Ave., Philadelphia, Pa.; New York, N. Y., January 17, 1919.
National Municipal League: Lawson Purdy, 105 East 22d St., New York, N. Y.; Clinton R. Woodruff, 703 North American Building, Philadelphia, Pa.
National Security League: Charles E. Lydecker, 2 Rector St., New York, N. Y.; Franklin Remington, 19 West 44th St., New York, N. Y.
Pan American Society of the United States: John Bassett Moore, 267 West 73d St., New York, N. Y.; Harry E. Bard, 15 Broad St., New York, N. Y.; New York, N. Y., February 14, 1919.
Society for the Promotion of Agricultural Science: Herbert Osborn, Ohio State University, Columbus, Ohio; C. P. Gillette, Fort Collins, Colo.; Washington, D. C., November 10–12, 1918.
Southern Commercial Congress: Robert W. Bingham, Louisville, Ky.; Clarence J. Owens, Southern Building, Washington, D. C.; Washington, D. C., 1919.
Southern Sociological Congress: Theodore D. Bratton, Jackson, Miss.: J. E. McCulloch, McLachlen Building, Washington, D. C.

XL.—State Federation of Women's Clubs.

The officers of the General Federation of Women's Clubs (national organization) are: President, Mrs. Josiah Evans Cowles, 1101 West Adams St., Los Angeles, Cal.; secretary, Mrs. W. I. McFarland, Wagner, S. Dak.; manager bureau of information, Mrs. Mary I. Wood, Portsmouth, N. H.

Name.	President.	Secretary.	Meeting.
Alabama	Mrs. James R. Hagan, 200 St. Louis St., Mobile.	Mrs. W. C. Fritter, Dothan.	Huntsville, Nov., 1919
Arizona	Mrs. H. A. Guild, Phoenix	.....	
Arkansas	Mrs. H. C. Gibson, College and Conservatory, Little Rock.	.....	
California	Mrs. Herbert A. Cable, 1906 W. 42d Pl., Los Angeles.	Miss Anne Mumford, 623 Prospect Ave., Pasadena.	San Diego, May 13, 14, 15, 1919.
Colorado	Mrs. Adam Weiss, Del Norte	Mrs. R. H. Bruce, Sterling.	Pueblo, Sept. 23–28, 1918.
Connecticut	Mrs. James R. Mason, 62 Atwater Ave., Derby.	Mrs. M. A. Card, 115 Edna Ave., Bridgeport.	Unknown, Oct., 1918.
Delaware	Mrs. A. D. Warner, 2104 Grant Ave., Wilmington.	Mrs. W. E. Douglass, 1905 Monroe St., Wilmington.	May, 1919.
District of Columbia.	Mrs. Court F. Wood, 311 E. Capitol St., Washington.	Mrs. Jason Waterman, 1807 Third St., NE.	Washington, Oct. 28, 1918.
Florida	Mrs. Edgar Lewis, Fort Pierce	Mrs. Hawkins, Brooksville.	Daytona, Nov. 12, 1918.
Georgia	Mrs. Nellie Peters Black, 519 Spring St., Atlanta.	Mrs. Price Gilbert, 37 E. 14th St., Atlanta.	Columbus, Nov. 12, 13, 14, 1918.
Idaho	Mrs. M. J. Sweeley, 325 8th Ave., North Twin Falls.	.....	
Illinois	Miss Jessie I. Spafford, 401 E. State St., Rockford.	Mrs. W. R. Hunter, Kankakee.	Unknown, May, 1919.
Indiana	Mrs. John Edward Moore, 902 W. Mulberry St., Kokomo.	Mrs. Emogene Taft-Sesh, Muncie.	Indianapolis, Oct. 22–25, 1918.
Iowa	Mrs. John W. Watzek, 1407 Brady St., Davenport.	Mrs. F. F. Faville, 1119 6th Ave. North, Fort Dodge.	Ames, 3d week of May, 1919.
Kansas	Mrs. H. O. Garvey, 515 Buchanan St., Topeka.	Miss N. Herren, 410 Topeka Ave., Topeka.	April or May, 1919.
Kentucky	Mrs. Lafon Riker, Harrodsburg	Mrs. John Lafon, Harrodsburg.	Next spring.
Louisiana	Mrs. A. F. Storm, Morgan City	Mrs. W. B. Reed, Morgan City.	New Orleans, Nov. 14, 1918.
Maine	Mrs. Myrtle L. White, Presque Isle.	Mrs. Idella Cross, Presque Isle.	Not decided.
Maryland	Mrs. Francis Sanderson, Walbrook.	Mrs. Albert P. Gove, Cecil Apartment, Baltimore.	Baltimore, April, 1919.
Massachusetts	Mrs. Herbert J. Gurney, 188 Warren Ave., Wollaston.	Miss Agnes L. Dodger, 265 Franklin St., Melrose Highlands.	Marlboro, Nov., 1918.
Michigan	Mrs. Albert E. Bulson, 1004 Francis St., Jackson.	Mrs. C. L. Thompson, 101 Houston Ave., Muskegon.	Battle Creek, Oct, 15–17, 1918.
Minnesota	Mrs. Geo. J. Allen, Rochester	Mrs. Austin A. Kennedy, Rochester.	Winona, Sept. 24, 25, 26, 1918.

XL.—State Federation of Women's Clubs—Continued.

Name.	President.	Secretary.	Meeting.
Mississippi	Mrs. B. F. Saunders, Swan Lake.	Mrs N. Hawkins, Swan Lake.	Agricultural College, Nov. 19-23, 1918.
Missouri	Mrs. George A. Still, Kirksville.	Mrs. J. W. Parker, 4200 St. John Ave., Kansas City.	St. Louis, May, 1919.
Montana	Mrs. W. T. Perham, Glendive.	Mrs E. F. Carey, Missoula.	Glendive, May or June, 1919.
Nebraska	Mrs. Addison E. Sheldon, Lincoln.	Mrs. B. Miller, North Bend.	Fairbury, Oct., 1918.
Nevada	Mrs. Pearis Buckner Ellis, 116 N. Carson St., Carson City.	Miss Rose Stewart, Carson City.	Elko, spring, 1919.
New Hampshire	Mrs. A. H. Harriman, 778 Main St., Laconia.	Mrs. James S. Smith, Avery Court, Laconia.	May, 1919.
New Jersey	Mrs. John R. Schermerhorn, 11 Halsted Pl., East Orange.	Mrs. Frank A. Bailey, Leonia.	Atlantic City, May 8, 9, 10, 1919.
New Mexico	Mrs. C. E. Mason, Roswell	Mrs. S. L. Wilson, Raton.	Raton, Oct., 1918.
New York	Mrs. Geo. D. Hewett, Carthage.	Mrs. A. C. Bage, 251 W. 92d St., New York City.	New York City, Nov., 11-16, 1918.
North Carolina	Mrs. Clarence A. Johnson, 109 N. Boylan Ave., Raleigh.	Mrs. Thomas Bost, Edenton St., Raleigh.	Hendersonville, June, 1919.
North Dakota	Mrs. H. G. Vick, Cavalier	Mrs. M. S. McBride, Cavalier.	Grand Forks, Oct. 15, 16, 17, 1918.
Ohio	Mrs. Prentice E. Rood, 738 Grove Pl., Toledo.	Mrs. William Harley Porter, 444 Kenilworth Ave., Toledo.	Coshocton, Oct. 14-18, 1918.
Oklahoma	Mrs. E. B. Lawson, Nowata	Mrs. M. F. Earley, Muskogee.	Not decided.
Oregon	Mrs. Chas. H. Castner, Hood River.	Mrs. J. A. Pettit, 874 E. Taylor St., Portland.	Portland, Oct. 1, 2, 3, 1918.
Pennsylvania	Mrs. Ronald P. Gleason, 947 Clay Ave., Scranton.	Mrs. H. C. Boden, 208 St. Marks Sq., Philadelphia.	York, Oct. 15, 16, 17, 1918.
Rhode Island	Mrs. Howard W. Farnum, Chepachet.	Mrs. Frank Chapman, 65 Atlantic Ave., Providence.	Providence, Oct. or Nov., 1918.
South Carolina	Mrs. Le Roy Springs, Lancaster.	Miss Margaret Moore, Lancaster.	Spring, 1919.
South Dakota	Mrs. Carl Gunderson, Vermilion.	Mrs. Grace R. Porter, Fort Pierre.	Sioux Falls, Oct. 8. 9, 10, 1918.
Tennessee	Mrs. Alex. Caldwell, R. F. D. 9, Nashville.	Mrs. Hallman Goodloe, Linden Ave., Nashville.	Undecided.
Texas	Mrs. C. W. Connery, 1530 Cooper St., Fort Worth.	Mrs. W. H. Moore, 612 Burnett St., Fort Worth.	Dallas, Nov. 18-22, 1918.
Utah	Mrs. Edward Bichsel, 718 25th St., Ogden.	Mrs. John Culley, 2579 Monroe Ave., Ogden.	Logan, Oct., 1918.
Vermont	Mrs. Gilbert F. Davis, 45 State St., Windsor.	Mrs. Leonard D. Wheeler, White River Junction.	Barre, May, 1919.
Virginia	Mrs. John Lyle Hagan, 254 Jefferson St., Danville.	Mrs. Archibald D. Keen, 944 Main St., Danville.	Undecided; May, 1919.
Washington	Mrs. N. S. McCready, 124 Ave. B, Snohomish.	Mrs. George C. Howard, 507 Ave. C, Snohomish.	June, 1919.
West Virginia	Mrs. George De Bolt, 314 1st St., Fairmont.	Mrs. A. L. Lehman, Walnut Ave., Fairmont.	Clarksburg, Oct. 24-27, 1918.
Wisconsin	Mrs. L. D. Harvey, Menominie.	Mrs. E. A. Morse, Antigo.	Eau Claire, Oct., 1918.
Wyoming	Mrs. S. Conant Parks, Lander.	Mrs. W. H. Dickinson, Lander.	Cheyenne, Oct. 1-4, 1918

XLI.—National Congress of Mothers and Parent-Teacher Associations.

The officers of the National Congress of Mothers and Parent-Teacher Associations are: President, Mrs. Frederic Schoff, Philadelphia, Pa.; secretary, Mrs. Arthur A. Birney, 1314 Massachusetts Avenue, Washington, D. C.

BRANCHES.

Name.	President.	Secretary.	Meeting.
Alabama			
Arizona	Mrs. J. C. Norton, 201 Fleming Bldg., Phoenix.	Mrs. Aubrey Smith, R. R. No. 2, Phoenix.	Phoenix, February, 1919.
California	Dr. Jessie A. Russell, 343 N. Maryland Ave., Glendale.	Mrs. William Eckhart	—— May, 1919.
Colorado	Mrs. H. T. French, Fort Collins	Mrs. Weisser, Denver	Denver, Aug. 3, 1918.
Connecticut	Mrs. Geo. Brinton Chandler, Rocky Hill.	Mrs. H. M. Barnard, Rocky Hill.	New Haven, Sept. 17, 1918.
Delaware	Mrs. Garrett S. Harrington, Harrington.	Mrs. Robert Lewis, Dover.	Dover, April, 1919.

XLI.—National Congress of Mothers and Parent-Teacher Associations—Continued.

BRANCHES—Continued.

Name.	President.	Secretary.	Meeting.
District of Columbia.	Mrs. Giles S. Rafter, 3105 16th St. NW.	Mrs. Ernest Daniel, 2111 19th St.	Washington, Oct. 15, 1918.
Florida [1]	W. N. Sheats, 3105 16th St., Tallahassee.		
Georgia	Mrs. J. E. Andrews, 8 Orange St., Atlanta.	Mrs. P. H. Jeter, Clairmont Ave., Decatur.	April, 1919.
Idaho	Mrs. E. J. Payne, 521 South 13th St., Boise.	Mrs. Ewen, Boise, R. D. 1.	May, 1919.
Illinois	Mrs. Harry Fleming, 1401 North Main St., Bloomington.	Mrs. James C. Riley, East Olive St., Bloomington.	Peoria, May, 1919.
Indiana	Mrs. Hence Orme, R. R. D., Box 313, Indianapolis.		
Iowa	Mrs. Allen O. Ruste, Charles City.	Miss Pamelia Fluent, Charles City.	Ames, Oct. 22–25, 1918.
Kansas	Mrs. J. K. Codding, Lansing	Miss Clara L. Mallory, 430 Pine St., Leavenworth.	Kansas City, April, 1919.
Kentucky	Mrs. Geo. C. Weldon, Eastleigh, Louisville.	Miss Elizabeth Stouffer, Weissinger Galbert, B. L. 29, Louisville.	Louisville.
Maine	Mrs. Hugh Ross Hatch, Fairfield	Mrs. Frank Dean, Winslow.	Portland, November, 1918.
Maryland	Mrs. Harry E. Parkhurst, 1410 Park Ave., Baltimore.	Mrs. William G. Hoskins, 1210 Linden Ave., Baltimore.	
Massachusetts	Mrs. Milton P. Higgins, 228 West St., Worcester.	Mrs. Edward French, Andover.	Pittsfield, Oct. 9, 10, 11, 1918.
Michigan	Mrs. C. E. Stewart, Battle Creek		
Mississippi	Mrs. H. P. Hughes, Agricultural College.		
Missouri	Mrs. J. H. Sheldon, 2550 Tracy Ave., Kansas City.	Mrs. Frank Dorsey, 4015 Prospect St., Kansas City.	
Montana	Mrs. H. B. Farnsworth, Missoula	Mrs. John E. Keach, Missoula.	Butte.
New Hampshire	Mrs. A. H. Harriman, 778 Main St., Laconia.	Mrs. Willis P. Lamprey, Court St., Laconia.	——— May, 1919.
New Jersey	Mrs. Wellington Bechtel, Haddonfield.	Mrs. S. P. Leeds, Chalfonte, Atlantic City.	Trenton, Nov. 8, 9, 1918.
New Mexico	Mrs. Ruth C. Miller, Sante Fe		
New York	Mrs. William A. Saltford, 16 North Ave., Poughkeepsie.	Mrs. Beatrice Moses, Gloversville.	Gloversville, October, 1918.
North Carolina [1]	Mrs. W. N. Hutt, West Raleigh [2]		
North Dakota	Mr. G. E. McLellan, Agricultural College, Fargo.		
Ohio	Mrs. Willits H. Sawyer, Central and Cardigan Ave., Columbus.	Mrs. Frank Sanborn, 90 14th Ave., Columbus.	Circleville, Oct. 3, 4, 5, 1918.
Oregon	Mrs. Fred G. Schilke, La Grande	Mrs. L. A. Harlow, Troutdale.	
Pennsylvania	Mrs. E. E. Kiernan, Somerset	Mrs. William Brice, Bedford.	Coatesville, Oct. 24, 25, 26, 1918.
Rhode Island	Mrs. Charles H. Remington, 216 Waterman Ave., East Providence.	Mrs. Joseph P. Canning, 73 Beaufort St., Providence.	Providence, Oct. 7, 1918.
South Carolina [1]	Mrs. Malcolm Woods, Marion [2]		
South Dakota	Mrs. Jean McKee Kenaston, Bonesteel.		
Tennessee	Mrs. Eugene Crutcher, 817 Lischey Ave., Nashville.	Mrs. G. M. Whittemore, 750 Wedgewood Ave., Nashville.	Knoxville, October, 1919.
Texas	Mrs. E. A. Watters, 814 Pennsylvania Ave., Fort Worth.	Mrs. L. T. Worley, 305 Gunter Bldg., San Antonio.	Wichita Falls, Nov. 6, 7, 8, 1918.
Utah	Mrs. John E. Dooley, 506 E. S. Temple St., Salt Lake City.		
Vermont	Mrs. Frank W. Pier, Brattleboro	Mrs. Edward B. Huling, Bennington.	Not decided. May, 1919.
Washington	Mrs. C. Arthur Varney, Yakima	Mrs. Richard Strobach, Yakima.	Do.
Wisconsin	Mrs. Edward Hammett, 1209 N. 7th St., Sheboygan.	Mrs. Ernest Gonzenbach, Pine Lodge, Sheboygan Falls.	Milwaukee, Nov. 7, 8, 1918.
Wyoming	Dr. Bertha N. Hamilton, Greybull.	Mrs. Frank Kelley, Sheridan.	Cheyenne, Oct. 1, 2, 3, 4, 1918.

[1] No State branch.

[2] Organizer.

XLII.—Educational Periodicals.

List of American educational periodicals currently received by the library of the Bureau of Education.

[List of abbreviations: bm.=bimonthly; ir.=irregular; m.=monthly; q.=quarterly; sm.=semimonthly; w.=weekly.]

Alabama. *See* Educational Exchange.
American Church Sunday School Magazine. 201 North Second Street, Harrisburg (Pa.). m.
American Education. 50 State Street, Albany (N. Y.). 10 nos.
American Journal of Care for Cripples. 3505 Broadway, New York. q.
American Journal of School Hygiene. Worcester (Mass.). q.
American Oxonian. Menasha (Wis.). q.
American Penman. 30 Irving Place, New York. m.
American Physical Education Review. Springfield (Mass.). 9 nos.
American School. P. O. Box 134, Milwaukee. m.
American School Board Journal. 354 Milwaukee Street, Milwaukee. m.
American Schoolmaster. Ypsilanti (Mich.). 10 nos.
American Teacher. 225 Fifth Avenue, New York. 10 nos.
Americanization Bulletin, Bureau of Education, Washington (D. C.) sm.
Arizona Teacher. Phoenix. 10 nos.
Arkansas Teacher. Conway. 10 nos.
Boston Teachers News-Letter. Boston. 10 nos.
Bulletin of High Points in the Teaching of Modern Languages in the High Schools of New York City. Board of Education Building, New York. m.
Bulletin of the Board of Education of the Methodist Episcopal Church, South. Nashville (Tenn.). q.
Bulletin of the High School Teachers' Association of the District of Columbia. Washington (D. C.)
Business Educator. Columbus (Ohio). 10 nos.
California. *See* California Blue Bulletin; Modern Language Bulletin; Sierra Educational News; University of California Chronicle; Western Journal of Education.
California Blue Bulletin. Sacramento. q.
Carry On; a magazine on the reconstruction of disabled soldiers and sailors. Washington (D. C.) m.
Catholic Educational Review. Washington (D. C.). 10 nos.
Catholic School Journal. Milwaukee. 10 nos.
Child Labor Bulletin, 105 East Twenty-second Street, New York. q.
Child-Welfare Magazine. 227 South Sixth Street, Philadelphia. m.
Chinese Students' Monthly. Ashburnham (Mass.). 8 nos.
Christian Educator. Washington (D. C.). 10 nos.
Christian Student. 150 Fifth Avenue, New York. q.
Classical Journal. University of Chicago Press, Chicago. 9 nos.
Classical Weekly. Barnard College, New York. w. from October to May.
Colorado School Journal. Denver. 10 nos.
Columbia University Quarterly. New York. q.
Community Center. 1439 K Street NW., Washington (D. C.). m.
Connecticut. *See* New Haven Teachers Journal.
Current Education. Philadelphia. 10 nos.
District of Columbia. *See* Americanization Bulletin, Bulletin of the High School Teachers' Association of the District of Columbia; Carry On; Catholic Educational Review; Christian Educator; Community Center; Journal of the National Education Association; National School Service; School Life; Vocational Summary; Volta Review.
Education. 120 Boylston Street, Boston. 10 nos.
Education Bulletin. Trenton. 10 nos.
Educational Administration and Supervision. Warwick & York (Inc.), Baltimore. 10 nos.
Educational Exchange. Birmingham (Ala.). m.
Educational Foundations. 31–33 East Twenty-seventh Street, New York. 10 nos.
Educational Review. Columbia University, New York. 10 nos.
Educational Standards. Charlestown (Mass.). 10 nos.
Educator-Journal. 403 Newton Claypool Building, Indianapolis. m.
Elementary School Journal. University of Chicago Press, Chicago. 10 nos.
Engineering Education. Lancaster (Pa.). 10 nos.
English Journal. University of Chicago Press, Chicago. 10 nos.
English Leaflet. Newtonville (Mass.). m. except July, August, and September.
El Estudiante Latino-Americano. Ann Arbor (Mich.). bm.
Florida Schoolroom. Gainesville. 10 nos.
General Science Quarterly. Salem (Mass.). q.
Georgia. *See* High School Quarterly; School and Home.
Harvard Graduates' Magazine. Boston. q.
Hawaii Educational Review. Honolulu. 10 nos.
High School Journal. Chapel Hill (N. C.). q.
High School Quarterly. Athens (Ga.). q.
Historical Outlook, formerly History Teacher's Magazine. McKinley Publishing Co., Philadelphia. 10 nos.
Home and School Guest. Stroudsburg (Pa.). q.
Hospital School Journal. Detroit (Mich.). m.
Illinois. *See* Classical Journal; Elementary School Journal; English Journal; Illinois Association of Teachers of English Bulletin; Illinois Teacher; Journal of the Association of Collegiate Alumnæ; Manual Training Magazine; Religious Education; School and Home Education; School Century; School News and Practical Educator; School Review; School Science and Mathematics; University Record.
Illinois Association of Teachers of English Bulletin. Urbana. 8 nos.
Illinois Teacher. Urbana. 10 nos.
Indiana. *See* Educator-Journal; Indiana Instructor; Teacher's Journal.
Indiana Instructor. Indianapolis. m.
Industrial-Arts Magazine. Bruce Publishing Company, Milwaukee. m.
Inter-Mountain Educator. Missoula (Mont.). 10 nos.
Iowa. *See* Midland Schools; School Music.
Johns Hopkins Alumni Magazine. Baltimore. q.
Journal of Applied Psychology. Worcester (Mass.). q.
Journal of Education. 6 Beacon Street, Boston. w.

Journal of Educational Psychology. Warwick & York (Inc.), Baltimore. 10 nos.
Journal of Experimental Psychology. Princeton (N. J.). bm.
Journal of Geography. Madison (Wis.). 10 nos.
Journal of Home Economics. 1211 Cathedral Street, Baltimore. m.
Journal of the Association of Collegiate Alumnæ. University of Chicago Press, Chicago. 10 nos.
Journal of the National Education Association. 1400 Massachusetts Avenue, Washington (D.C.) 10 nos.
Journal of the New York State Teachers' Association. Rochester. 8 nos.
Kansas. *See* Kansas Journal of Education: Kansas Teacher; Teaching.
Kansas Journal of Education. Kansas City. w. except June, July and August.
Kansas Teacher. Topeka. m.
Kentucky. *See* Kentucky High School Quarterly; Southern School Journal.
Kentucky High School Quarterly. Lexington. q.
Kindergarten and First Grade. Springfield (Mass.). 10 nos.
Kindergarten-Primary Magazine. Manistee (Mich.). 10 nos.
Louisiana. *See* Southern School Work.
Maine State School Bulletin. Augusta. 10 nos.
Manual Training Magazine. Peoria (Ill.). 10 nos.
Maryland. *See* Educational Administration and Supervision; Johns Hopkins Alumni Magazine; Journal of Educational Psychology; Journal of Home Economics.
Massachusetts. *See* American Journal of School Hygiene; American Physical Education Review; Boston Teachers News-Letter; Chinese Students' Monthly; Education; Educational Standards; English Leaflet; General Science Quarterly; Harvard Graduates' Magazine; Journal of Applied Psychology; Journal of Education; Kindergarten and First Grade; Pedagogical Seminary; Popular Educator; Primary Education; School Arts Magazine; Vocational Guidance Bulletin.
Mathematics Teacher. Lancaster (Pa.). q.
Mental Hygiene. Concord (N. H.). q.
Michigan. *See* American Schoolmaster; El Estudiante Latino-Americano; Hospital School Journal; Kindergarten-Primary Magazine; Moderator-Topics.
Middle-West School Review. Omaha (Nebr.). m.
Midland Schools. Des Moines. 10 nos.
Mind and Body. New Ulm (Minn.). 10 nos.
Minnesota. *See* Mind and Body; School Education.
Mississippi Educational Advance. Jackson. 10 nos.
Missouri. *See* Missouri Journal of Education; Missouri School Journal; Rural School Messenger.
Missouri Journal of Education. Kansas City. w. except June, July and August.
Missouri School Journal. Jefferson City. 10 nos.
Moderator-Topics. Lansing (Mich.). w. except July and August.
Modern Language Bulletin. Los Angeles. 3 nos.
Modern Language Journal. 68th and Park Avenue, New York. 8 nos.
Monatshefte für Deutsche Sprache und Pädagogik. Milwaukee. 10 nos.
Montana. *See* Inter-Mountain Educator.
Music Supervisors' Journal. Madison (Wis.). q.
National Association of Corporation Schools Bulletin. Irving Place and Fifteenth Street, New York. m.
National School Service. Committee on Public Information, Washington (D. C.). sm.
Nature-Study Review. Ithaca (N. Y.). 9 nos.
Nebraska. *See* Middle-West School Review; Nebraska Teacher.
Nebraska Teacher. Lincoln. 10 nos.
Nevada School Journal. Carson. 10 nos.
New Hampshire. *See* Mental Hygiene.
New Haven Teachers Journal. New Haven (Conn.). bm.
New Jersey. *See* Education Bulletin; Journal of Experimental Psychology; School News; Training School Bulletin.
New Mexico Journal of Education. Santa Fe. 10 nos.
New York. *See* American Education; American Journal of Care for Cripples; American Penman; American Teacher; Bulletin of High Points in the Teaching of Modern Languages in the High Schools of New York City; Child Labor Bulletin; Christian Student; Classical Weekly; Columbia University Quarterly; Educational Foundations; Educational Review; Journal of the New York State Teachers' Association; Modern Language Journal; National Association of Corporation Schools Bulletin; Nature-Study Review; Normal Instructor and Primary Plans; Physical Training; Playground; School; School and Society; School Bulletin; Teachers College Record; Teacher's Monographs; Ungraded; Vocationist.
Normal Instructor and Primary Plans. Dansville (N. Y.). 10 nos.
North Carolina. *See* High School Journal; North Carolina Education; Training School Quarterly.
North Carolina Education. Raleigh. 10 nos.
North Dakota. *See* Quarterly Journal of the University of North Dakota.
Northwest Journal of Education. Seattle. 10 nos.
Ohio. *See* Business Educator; Ohio Educational Monthly; Ohio History Teachers' Journal; Ohio Teacher; School Index; Sunday School Journal.
Ohio Educational Monthly. Columbus. m.
Ohio History Teachers' Journal. Columbus. q.
Ohio Teacher. Columbus. m.
Oklahoma Journal of Education. Oklahoma City. w. except June, July, and August.
Oklahoma School Herald. Oklahoma City. 10 nos.
Oregon Teachers' Monthly. Salem. 10 nos.
Pedagogical Seminary. Worcester (Mass.). q.
Pennsylvania. *See* American Church Sunday School Magazine; Child-Welfare Magazine; Current Education; Engineering Education; Historical Outlook; Home and School Guest; Mathematics Teacher; Pennsylvania School Journal; Pittsburgh School Bulletin; Psychological Clinic; Stenographer and Phonographic World.
Pennsylvania School Journal. Lancaster. m.
Philippine Education. Manila. 10 nos.
Philippine News Review. Manila. sm.
Physical Training. 124 East Twenty-eighth Street, New York. 10 nos.
Pittsburgh School Bulletin. Pittsburgh. 10 nos.
Playground. 1 Madison Avenue, New York. m.
Popular Educator. 50 Bromfield Street, Boston. 10 nos.
Porto Rico School Review. San Juan. 10 nos.
Primary Education. 50 Bromfield Street, Boston. 10 nos.
Progressive Teacher. Nashville. 10 nos.
Psychological Clinic. Woodland Avenue and Thirty-sixth Street, Philadelphia. 9 nos.

Quarterly Journal of Speech Education. Menasha (Wis.). q.
Quarterly Journal of the University of North Dakota. University. q.
Religious Education. 1440 East Fifty-seventh Street, Chicago. bm.
Rural School Messenger. Kirksville (Mo.). 8 nos.
School. 154 Fifth Avenue, New York. w. except August.
School and Home. Atlanta (Ga.). m.
School and Home Education. Bloomington (Ill.). 10 nos.
School and Society. Garrison-on-Hudson (N. Y.). w.
School Arts Magazine. 25 Foster Street, Worcester (Mass.). 10 nos.
School Bulletin. Syracuse (N. Y.). m.
School Century. Oak Park (Ill.). 10 nos.
School Education. Minneapolis. 10 nos.
School Index. Cincinnati. w.
School Life. Bureau of Education, Washington (D. C.). sm.
School Music. Keokuk (Iowa). bm. except July
School News. New Egypt (N. J.). m.
School News and Practical Educator. Taylorville (Ill.). 11 nos.
School Review. University of Chicago Press, Chicago. 10 nos.
School Science and Mathematics. Mount Morris (Ill.). 9 nos.
Sierra Educational News. San Francisco. 10 nos.
South Dakota Educator. Mitchell. 10 nos.
Southern School Journal. Lexington (Ky.). m.
Southern School Work. Baton Rouge. 10 nos.
Southern Workman. Hampton (Va.). m.
Stenographer and Phonographic World. 23 South Fifty-second Street, Philadelphia m.
Sunday School Journal. Methodist Book Concern, Cincinnati. m.
Teachers College Record. Teachers College, Columbia University, New York. bm. except July.
Teacher's Journal. Marion (Ind.). m.
Teacher's Monographs. 16 Court Street, Brooklyn (N. Y.). 8 nos.
Teaching. Emporia (Kans.). m.
Tennessee. *See* Bulletin of the Board of Education of the Methodist Episcopal Church, South; Progressive Teacher.
Texas School Journal. Dallas. 10 nos.
Training School Bulletin. Vineland (N. J.). 10 nos.
Training School Quarterly. Greenville (N. C.). q.
Ungraded. 500 Park Avenue, New York. 9 nos.
University of California Chronicle. Berkeley. q.
University Record. University of Chicago Press, Chicago. q.
Utah Educational Review. Salt Lake City. 10 nos.
Virginia. *See* Southern Workman; Virginia High School Bulletin; Virginia Journal of Education; Virginia State Teachers' Association Quarterly.
Virginia High School Bulletin. University. q.
Virginia Journal of Education. Richmond. 10 nos.
Virginia State Teachers' Association Quarterly. Richmond. q.
Vocational Guidance Bulletin. Cambridge (Mass.).
Vocational Summary. Federal Board for Vocational Education, Washington (D. C.). m.
Vocationist. Oswego (N. Y.). q.
Volta Review. Washington (D. C.). m.
Washington. *See* Northwest Journal of Education.
West Virginia School Journal and Educator. Charleston. m.
Western Journal of Education. 324 Phelan Building, San Francisco. m.
Western Teacher. Milwaukee. 10 nos.
Wisconsin. *See* American Oxonian; American School; American School Board Journal; Catholic School Journal; Industrial-Arts Magazine; Journal of Geography; Monatshefte für Deutsche Sprache und Pädagogik; Music Supervisors' Journal; Quarterly Journal of Speech Education; Western Teacher; Wisconsin Journal of Education.
Wisconsin Journal of Education. Madison. 10 nos.
Wyoming School Journal. Laramie. 10 nos.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1918, No. 37

COURSES OF STUDY FOR THE PREPARATION OF TEACHERS OF MANUAL ARTS

By ALBERT F. SIEPERT
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1919

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COURSES OF STUDY FOR THE PREPARATION OF TEACHERS OF MANUAL ARTS.

I.—INTRODUCTION.

The training of special teachers of manual arts is of comparatively recent origin. Most of the institutions whose courses have been studied in the preparation of this paper have organized definite curricula within the last decade. It is therefore apparent that the pioneer days are still with us.

The Massachusetts Normal Art School, established in 1873, was among the first schools in the United States to offer courses of this sort. However, the school early turned its attention to the art field and has not specifically trained teachers of the type we are considering. The Trenton (N. J.) Normal School offered certain technical courses as early as 1890, or a little later, but it was only the man of unusual ability who would be selected as a special teacher of manual arts. Pratt Institute developed a combination art and manual training course about the same time. However, some of these students later went to Teachers College, Columbia University, for courses in pedagogy, for which adequate provision was not made at Pratt Institute at that time. By a curious coincidence, the present Teachers College students, a generation later, may get their technical courses at Pratt Institute.

The first definite organization of a course to prepare special teachers of manual training was made by Teachers College in 1891, when Prof. Charles A. Bennett was called from the principalship of the St. Paul (Minn.) Manual Training High School to become head of the department of manual training. He had the honor of offering the first course in the pedagogy of the manual arts ever given for an advanced degree. He also had the privilege of determining in a large measure the character of the Macy Manual Arts Building, which became the model in arrangement and equipment for many other schools. The first man to graduate from this course was William F. Vroom, who is still engaged in teaching in the New York public schools.

In the Middle West small beginnings were made in private institutions, such as the Chicago Manual Training School, which later became a part of the University of Chicago; the Francis W. Parker School; Bradley Polytechnic Institute; and in the State normal

schools. The most recent additions are the special State normal schools for training these teachers, and the departments of manual arts in our State universities.

II.—NUMBER AND CHARACTER OF SUCH INSTITUTIONS IN THE UNITED STATES.

A study of available material indicates that there are not less than 184 institutions of various kinds in the United States which offer more or less extended curricula designed for the preparation of teachers. There are also three in our territorial possessions—one in Porto Rico, one in Honolulu, and one in the Philippines. These schools are of the following types, the numerals indicating the numbers in each case: 23 State universities, 13 private universities, 6 colleges, 17 State agricultural colleges, 15 State teachers colleges, normal colleges, and normal universities, 3 State manual training normal schools, 62 State normal schools, 15 colored schools with normal departments, 8 private schools with normal departments, 10 technical schools with normal departments, 4 private normal schools, 7 municipal colleges, universities, and normal schools.

Institutions having curricula for preparation of manual training teachers.

Location.	Institution.
ALABAMA.	
Auburn	Alabama Polytechnic Institute.
Florence	State Normal School.
Jacksonville	Do.
Livingston	Do.
Montgomery	Agricultural and Mechanical College for Negroes.
Normal	State Normal School for Negroes.
Troy	State Normal School.
Tuscaloosa	University of Alabama.
Tuskegee	Normal and Industrial Institute (colored).
ARIZONA.	
Flagstaff	State Normal School.
Tempe	Do.
Tucson	University of Arizona.
ARKANSAS.	
Fayetteville	University of Arkansas.
CALIFORNIA.	
Berkeley	University of California.
Chico	State Normal School.
Fresno	Do.
Los Angeles	Do.
San Diego	Do.
San Francisco	California School of Mechanical Arts.
San Jose	State Normal School.
Santa Barbara	State Normal School of Manual Arts and Home Economics.
Stanford University	Leland Stanford, jr., University.
COLORADO.	
Fort Collins	State Agricultural College.
Gunnison	State Normal School.

Location.	Institution.
CONNECTICUT.	
Hartford	Hillyer Institute.
DISTRICT OF COLUMBIA.	
Washington	Howard University (colored).
GEORGIA.	
Atlanta	Atlanta University (colored).
HAWAII.	
Honolulu	Territorial Normal School.
IDAHO.	
Albion	State Normal School.
Lewiston	Do.
Moscow	University of Idaho.
ILLINOIS.	
Carbondale	Southern Illinois State Normal University.
Charleston	State Normal School.
Chicago	Lewis Institute.
Do	University of Chicago.
Do	Chicago Normal College.
Do	F. W. Parker School.
Do	Chicago Technical College.
Decatur	James Millikin University.
De Kalb	State Normal School.
Macomb	Do.
Mooseheart	Vocational and Industrial Institute.
Normal	State Normal University.
Peoria	Bradley Polytechnic Institute.
INDIANA.	
Bloomington	Indiana State University.
LaFayette	Purdue University.

Institutions having curricula for preparation of manual training teachers—Continued.

Location.	Institution.
INDIANA—contd.	
Princeton	Princeton Normal and Industrial University. (colored).
Terre Haute	Indiana State Normal School.
Valparaiso	Valparaiso University.
IOWA.	
Cedar Falls	State Teachers College.
Des Moines	Des Moines College.
Iowa City	State University of Iowa, Department of Manual Arts.
Shenandoah	Western Normal College.
KANSAS.	
Emporia	State Normal College.
Hays	Fort Hays Kansas Normal School.
Lawrence	University of Kansas.
Pittsburg	State Manual Training Normal School.
KENTUCKY.	
Berea	Berea College.
Frankfort	Kentucky Normal and Industrial Institute.
Lexington	University of Kentucky.
Lincoln Ridge	Lincoln Institute of Kentucky (colored).
Richmond	State Normal College.
LOUISIANA.	
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.
Natchitoches	State Normal School.
MAINE.	
Gotham	State Normal School.
Orono	State Agricultural College.
MASSACHUSETTS.	
Boston	Sloyd Training School.
Do	Massachusetts Normal Art School.
Do	Franklin Union.
Cambridge	Harvard University.
Fitchburg	State Normal School.
MICHIGAN.	
Detroit	Thomas Normal Training School.
Kalamazoo	State Normal School.
Mount Pleasant	Do.
MINNESOTA.	
Mankato	State Normal College.
Minneapolis	University of Minnesota.
Moorhead	State Normal School.
St. Cloud	Do.
St. Paul	Macalaster College.
Do	University of Minnesota, College of Agriculture.
St. Peter	Gustavus Adolphus College.
Winona	State Normal School.
MISSISSIPPI.	
Starkville	Mississippi Agricultural and Mechanical College.
Shelby	Industrial Agricultural College for Negroes.

Location.	Institution.
MISSOURI.	
Cape Girardeau	State Normal School.
Columbia	University of Missouri.
Warrensburg	State Normal School.
MONTANA.	
Bozeman	State College of Agriculture.
NEBRASKA.	
Lincoln	University of Nebraska.
Peru	State Normal School.
NEW HAMPSHIRE.	
Durham	New Hampshire College of Agriculture and Mechanic Arts.
Keene	State Normal School.
Plymouth	Do.
NEW JERSEY.	
New Brunswick	State Agricultural College.
Trenton	State Normal School.
NEW MEXICO.	
East Las Vegas	State Normal University.
Silver City	State Normal School.
NEW YORK.	
Albany	State College for Teachers.
Alfred	Alfred University.
Brooklyn	Pratt Institute.
Buffalo	State Normal School.
New York City	Teachers College (Columbia University).
Do	New York University.
Do	Hunter College of the City of New York.
Do	Ethical Culture Schools
Oswego	State Normal School.
Rochester	Mechanics Institute.
Syracuse	Syracuse University.
NORTH CAROLINA.	
Greensboro	State Normal College.
Raleigh	Shaw University (colored).
Do	St. Augustine's School.
West Raleigh	State College of Agriculture and Engineering
NORTH DAKOTA.	
Ellendale	State Normal School.
Fargo	North Dakota Agricultura College.
Grand Forks	University of North Dakota.
Mayville	State Normal School
Minot	Do.
Valley City	Do.
OHIO.	
Athens	Ohio University.
Bowling Green	State Normal College
Cincinnati	University of Cincinnati.
Cleveland	Cleveland School of Education.
Columbus	Ohio State University.
Dayton	St. John Normal School.
Delaware	Ohio Wesleyan University.
Kent	State Normal College.
Oxford	Miami University.
Toledo	Toledo University.

Institutions having curricula for preparation of manual training teachers—Continued.

Location	Institution.
OKLAHOMA.	
Ada	State Normal School.
Alva	Do.
Edmond	Do.
Norman	University of Oklahoma.
Stillwater	Oklahoma Agricultural and Mechanical College.
Tahlequah	State Normal School.
Weatherford	Do.
OREGON.	
Corvallis	Oregon Agricultural College.
PENNSYLVANIA.	
Bloomsburg	State Normal School.
Edinboro	Do.
Indiana	Do.
Lewisburg	Bucknell University.
Mansfield	State Normal School.
Philadelphia	Philadelphia Trades School.
Do	Temple University.
Pittsburgh	Carnegie Institute of Technology.
Do	University of Pittsburgh.
Reading	Normal Training School.
State College	Pennsylvania State College.
Williamson School	Williamson Trade School.
PHILIPPINE ISLANDS.	
Manila	Philippine Public Schools.
PORTO RICO.	
Rio Piedras	Normal College.
RHODE ISLAND.	
Providence	State Normal School
SOUTH CAROLINA.	
Columbia	University of South Carolina.
Orangeburg	Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.
Do	Claflin University (colored).
SOUTH DAKOTA.	
Aberdeen	State Normal School.
TENNESSEE.	
Johnson City	East Tennessee State Normal School.
Knoxville	Knoxville College (colored).
Do	University of Tennessee.
TENNESSEE—contd.	
Memphis	West Tennessee State Normal School.
Murfreesboro	Middle Tennessee State Normal School.
Nashville	State Agricultural and Industrial Normal School for Negroes.
Do	George Peabody School for Teachers.
TEXAS.	
Austin	University of Texas.
Canyon City	State Normal College.
College Station	Agricultural and Mechanical College of Texas.
Commerce	East Texas State Normal College.
Denton	College of Industrial Arts.
Do	North Texas State Normal School.
Huntsville	Sam Houston Normal Institute.
Prairie View	State Normal and Industrial College (colored).
San Marcos	State Normal School.
UTAH.	
Logan	State Agricultural College.
Salt Lake City	University of Utah.
VERMONT.	
Burlington	University of Vermont.
VIRGINIA.	
Hampton	Hampton Normal and Agricultural Institute (colored)
Williamsburg	College of William and Mary.
WASHINGTON.	
Bellingham	State Normal School.
Cheney	Do.
Ellensburg	Do.
Pullman	State College of Washington.
Seattle	University of Washington.
Do	Public School Department.
WEST VIRGINIA.	
Morgantown	West Virginia University.
WISCONSIN.	
Madison	University of Wisconsin.
Menomonie	Stout Institute.
Oshkosh	State Normal School

III.—TYPES OF CURRICULA AS TO CHARACTER AND LENGTH OF TIME REQUIRED.

An almost infinite variety of courses are being offered in these schools. It has not been possible to secure catalogues or other information from a large number; hence the following list may not be inclusive of all types:

1. The University of Wisconsin has a part-time plan in operation through its extension department, whereby men of superior ability as workmen in the trades are given some brief specific instruction as to methods and principles of teaching. A somewhat similar

plan has been followed by the University of Indiana for tradesmen, in connection with the Smith-Hughes Act.

2. One-year course. A few institutions offer a course of but one year in length, as the Thomas Normal School, Detroit. In this case the various subjects are of necessity barely touched upon. The student is supposed to teach one year with success after his year in school before receiving the diploma.

3. The regular two-year normal course. This is typical of State normal school practice everywhere. The student follows prescribed courses in education, and in review and special methods courses in the common branches with permission to take a limited number of units of credit in manual training. For example, in the two-year curriculum for high-school graduates leading to the advanced diploma at the Moorehead (Minn.) State Normal School, 120 hours, or two terms, of such work may be selected. At the Warrensburg (Mo.) Normal School a student may elect not more than 10 semester hours of technical subjects for the so-called "60 semester hour course." In the former case the amount would be about 7 per cent of the entire course, including practice teaching; in the latter case the amount may not exceed 16 per cent.

4. Three-year combination. A number of the State normal schools offer a curriculum of one year of specialized technical training, based upon the previous completion of the regular two-year course. Arrangements seem possible permitting the student to arrange his work so that the technical work may be spread out over the three years. The student receives both the regular normal (two-year) diploma and a special certificate or diploma. In the case of the Macomb (Ill.) State Normal School, 13 of the 28 credits are in manual training, while the balance are the regular courses.

At the Northern Normal and Industrial School, Aberdeen, S. Dak., 130 term hours of general subjects and 65 term hours of technical subjects are specified as required. The remaining 165 term hours are electives, of which 27½ may be technical. In short the offering of the department is apparently exhausted when the student has taken 92½ hours of technical work, which is approximately 25 per cent of the total of 360 term hours required for graduation.

5. Two-year curricula for specialists are quite common. These vary in the proportion of time given to the technical and to general subjects according to the institution. The State normal schools commonly stress subject matter and methods courses in the common branches more than do the private technical schools. There is also considerable variation as to the aim of these courses. For example, at Bradley Institute it is rather expected that the two-year man will "teach in the upper grammar grades or the smaller high school." He is given a variety of technical subjects but is not supposed to become a narrow specialist because of his training. The Peru

(Nebr.) State Normal School has a two-year course entitled "Supervisor's course in manual training." At Stout Institute each student selects in his second year two of the four lines of work offered, and to that extent becomes a specialist in his teaching.

6. Three-year courses. A number of schools offer three-year curricula which place emphasis upon the technical subjects. The aim is to prepare men for positions in the larger high schools and in vocational schools.

7. Four-year courses. Curricula of four years are becoming comparatively common. These are offered by the universities, technical schools, and some of the State normal schools. Some lead to a degree; others apparently do not. In general these courses may be grouped under the following heads:

(*a*) Curricula which frankly train specialists in manual arts and which give considerable emphasis to definite technical work with less consideration of academic material.

(*b*) Curricula dividing the program equally or nearly so between technical courses and related special methods courses on the one hand, with general courses in education, English, etc., on the other.

(*c*) Several universities permit a student to "major" in the manual arts department and to carry a sequence of courses amounting to approximately one-fourth of his total requirement. The exact amount varies with institutions; for example, at the University of Wisconsin as many as 40 semester hours, or one-third of graduation requirement, are allowed. At the University of Chicago a "long sequence" of 9 majors may be taken, thus covering one-fourth of the 36 majors required for the degree. It is, however, possible for a student to take a maximum of 15 majors of work within any department, so that he may devote 40 per cent of his time to the chosen field.

(*d*) In a similar manner students may elect manual arts as a "minor" for their degree. At the University of Iowa this will total 14 semester hours out of the 120 required for graduation.

8. Special courses of decided technical character are being offered by such schools as Williamson Free School of Mechanical Trades, Bradley Institute, and others. At the former institution the student spends three years learning a trade as a regular indentured apprentice. He then must spend not less than two years in commercial work as a tradesman. He may then return for a period of 11 months for specific preparation fitting him for teaching. At Bradley Institute a course is available for teachers of automobile work. The first year is entirely technical in character and is complete in itself. The student then enters a commercial garage for actual experience. If he does approved work for a period of not less than three months, he may return for a second year of work in which emphasis is placed upon pedagogy, English, chemistry, and practice teaching, in addition to certain technical courses.

IV.—ENTRANCE REQUIREMENTS.

Admission requirements in normal schools are so varied and complex that classification requires individual treatment of each institution. However, available catalogues almost without exception call for the completion of four years of approved high-school work as admission requirements. There are certain additional prerequisites found in many cases. The University of Missouri asks for experience in the trades before admitting men to the two-year course. The same rule is followed in the case of Williamson School of Trades, as previously noted. The Fitchburg (Mass.) Normal School will admit men who have had either (1) four years of high-school work, (2) four years of experience in an approved trade, or (3) a combination of 1 and 2.

V.—FACULTIES.

The following table indicates, as far as a study of catalogs permits, the number of instructors who may be considered as members of the manual arts department in their respective schools. The exact figures can not be determined in most of the larger institutions as the shopwork is often done in the engineering shops, and is taught by men who evidently belong to the engineering college of the institution. This table indicates the character of training of these instructors as to kind of degree or diploma held.

Degrees held by instructors of manual training.

Institutions.	Degrees.							Diploma.	Number in department of manual arts.
	A.M.	M.S.	A.B.	B.S.	B.S.M.E.	Ph.B.	B.Ar.		
University of Missouri	1		1	3	1				8
Ohio University (Athens)		1		2					3
Ohio State University	1		1	2	2				11
Iowa State University			1						(1)
University of North Dakota			3		1			1	4
Miama University				3					9
University of Chicago				1		3			9
Stout Institute				3				6	13
Bradley Institute	1			2	3		1	2	12
Kansas State Manual Training Normal School			1	2	2			1	7
Warrensburg (Mo.) Normal School								1	1
Macomb (Ill.) Normal School				1					2
De Kalb (Ill. Normal School			1						2
Aberdeen (S. Dak.) Normal School				1				3	3
Trenton (N. J.) Normal School				(2)					(1)
Indiana State Normal School									4
West Tennessee State Normal School			1						1
Moorehead (Minn.) State Normal School								1	2
New Mexico State Normal School				1					1
Northeastern Oklahoma State Normal School									1
Gunnison (Colo.) State Normal School			1						1
Peru (Nebr.) State Normal School				2					3
Oshkosh (Wis.) State Normal School			1	1	1			2	7
Iowa State College	1			1				2	4

[1] Incomplete. (2) Not given.

Since the success of the graduates of any school is in a large measure dependent upon the experience as well as the training of the faculty, an attempt was made to note the teaching and trade experience of the members of the manual arts faculty. This was possible in a few cases only, as such information is seldom given in the annual catalogs. The following table indicates the findings in the cases of four institutions:

Teaching and trade experience of the instructors of manual training.

Institutions.	Instructors.	Average teaching experience, in years.	Average trade experience, in years.
Stout Institute	13	8⅚	6
Bradley Institute	12	9	5½
Kansas State Manual Training Normal School	7	8	3
Iowa State College	4	11½	½

VI.—EQUIPMENTS—BUILDINGS, LABORATORIES, SHOPS.

While it is obvious that adequate training is dependent upon ample physical resources and equipment, it is difficult to make a comparative study of schools. As a rule the State universities make use of the equipment found in (*a*) engineering classes or (*b*) model high schools. The variations run from elaborate to meager. Normal schools as a rule are not very well equipped for lines other than simple woodwork. These follow in order: Mechanical and freehand drawing, craft work, leather, clay, basketry, printing, metal working, machine shop, forging.

Strong courses for the preparation of teachers involve considerable outlay for equipment, as exemplified in the larger schools giving special emphasis to work of this character. Among eastern schools may be mentioned Williamson Free School of Mechanical Trades and Pratt Institute; in the Central West, Stout Institute, Oshkosh Normal School, Bradley Institute, Kansas State Manual Training Normal School. In general, the normal school or university equipment must be at least equal to what may be found in the schools in which the graduates teach. It should also be typical of good practice rather than so elaborate that the student is unable to adjust himself to mediocre conditions outside.

VII.—TYPICAL TWO-YEAR COURSES OF STUDY.

The following outlines are arranged to show the number and nature of the subjects included in the two-year courses offered in several typical schools. The numeral following a subject indicates term or semester hours. The division in two or three parts indicates that the school runs on a basis of a term of 12 weeks or a semester of 18 to 20 weeks.

UNIVERSITY OF MISSOURI.

First Year.

Psychology, 4.
Woodwork, 2.
Mechanical drawing, 2.
Tools and materials, 1.
Manual arts electives, 6.

Theory of teaching, 3.
Introduction to art, 5.
Metal work, 2.
Manual arts electives, 5.

Second Year.

Administration of manual arts, 2.
Pattern making, 2.
Furniture making, 2.
Machine shop, 2.
Elective manual arts, 5.

History of manual arts, 1.
Teaching manual arts, 2.
Furniture making, 2.
Machine shop, 2.
Manual arts elective, 8.

BRADLEY INSTITUTE.

First Year.

History of education, 5.
* Woodworking, 5.
* Mechanical drawing, 5.
* Metal working, 5.

English composition, 5.
* Woodfinishing and upholstery, 5.
* Freehand drawing, 5.
* Sheet metal work, 5.

Psychology.
* Carpentry and turning, 5.
* Mechanical drawing, 5.
* Art metal work, 5.

Second Year.

History of manual arts, 5.
Teaching mechanical drawing, 5.
* Teaching woodworking, 5.
* Design.

Principles of Teaching, 5.
* Constructive design, 5.
* Mechanical perspective, 5.
* Architectural drawing.

Advanced English composition, 5.
* Organization of manual arts, 5.
* Bookbinding and clay work, 5.
* Furniture making, 5.

KENT (OHIO) NORMAL COLLEGE.

First Year.

History of education.
English composition.
Mechanical drawing.
Elementary manual training.

Psychology.
Library economy.
Freehand drawing.
Woodworking.
Metal working.

Principles of teaching.
Manual training literature.
Mechanical drawing.
Woodworking.

Second Year.

History of manual training.
Practice teaching.
House planning.
Principles of design.

Practice teaching.
Public school handwork.
Woodworking.
Constructive design.

Practice teaching.
Organization of manual training.
Woodworking.
Electives.

DEKALB (ILL.) NORMAL SCHOOL.

First Year.

Psychology, 4.
Arithmetic, 4.
Mechanical drawing, 5.
Bench work, 10.
Printing, 10.

Psychology, 4.
Algebra, 5.
Themes, 1.
Mechanical drawing, 5.
Bench work, 10.
Printing, 10.

Political economy, 5.
Solid geometry, 5.
Mechanical drawing, 5.
Bench work, 10.
Printing, 10.

Second Year.

Courses, equipment, 5.
Teaching.
Rhetoric, 5.
Sociology, 5.
Metal work, 5.

Teaching.
Advanced physics.
Turning.
Mechanical drawing.

Teaching.
History of Education, 5.
Book binding, 10.
Mechanical drawing, 5.

* Double periods.

OHIO UNIVERSITY, ATHENS.

First Year.

Psychology, 3.
English composition, 3.
Mechanical drawing, 2.
School drawing, 1.
Elementary woodwork, 3.
Wood finishing, 2.
Joinery, 2.

Principles of education, 3.
Forestry or English, 2.
Observation and methods, 2.
Mechanical drawing, 2.
Bench work, 2.
Wood turning, 2.
School management, 2.
Shop equipment, 1.

Second Year.

History and organization of manual training, 2.
Teaching, 2.
Industrial education, 2.
Cabinet making, 2.
Pattern making, 2.
Carpentry, 2.
Mechanical drawing, 2.
Electives, 3.

Teaching, 2.
Cabinet-making, 2.
Constructive design, 2.
Mechanical drawing, 1.
Machine shop, 2.
Hammered metal work, 2.
Electives.

IOWA STATE TEACHERS COLLEGE.

First Year.

Psychology, I 5.[1]
Psychology, II.
Freshman English, 5.
Mechanical drawing, 8.
Woodwork, 7.
Perspective, 2½.
Design, 2½
Illustrative teaching, 1½.
Sheet metal work, 2½.
Elementary handwork, 2½

Second Year.

History of education, 5.
Teaching, 8½.
Manual training methods, 8.
Woodwork, 5.
Woodturning, 2.
Special electives, 5.
General electives, 12½.

OSHKOSH (WIS.) NORMAL SCHOOL.

First Year.

Psychology, 2.[2]
English composition, 3.
Mechanical drawing, 10.
Woodwork and turning, 10.
Forging, 10.
Freehand drawing, 2.
Applied design, 5.

Psychology, 2.
English composition, 3.
Mechanical drawing, 10.
Cabinetmaking, 10.
Pattern-making, 2.
Foundry practice, 10.
Freehand drawing, 2.
Applied design, 5.

Second Year.

History of manual training and courses of study, 5.
School management, 2.
Practice teaching, 3.
Advanced cabinet making, 15.
Crafts and applied design, 5.
Vocational mathematics, 5.

Organization of manual training, 5.
Practice teaching, 3.
Machine shop work, 15.
Craftwork, 5.
Mechanical drawing and machine design, 6.
Construction and materials, 4.
Ten weeks of commercial shop experience prerequisite for graduation.

MIAMI UNIVERSITY.

First Year.

Psychology, 3.[3]
English composition, 3.
Mechanical drawing, 2.
Woodworking, 3.
Object drawing and design, 1.
Trigonometry, 3.

Principles of teaching, 3.
English composition, 3.
Mechanical drawing, 2.
Woodworking, 3.
Object drawing and design, 1.
Shop mathematics, 3.

Second Year.

History of manual arts, 2.
School organization, 3.
Teaching and observation, 2.
Cabinet making, 3.
Constructive design, 1.
Descriptive geometry, 2.
Industrial arts elective, 2.

Organization and administration of vocationa education, 3.
Observation and teaching, 2.
Special methods, 3.
Cabinetmaking, 2.
Constructive design, 1.
Descriptive geometry, 2.
Industrial arts elective, 2.
Entrance prerequisite:
Maturity, special mechanical ability or teaching experience.

[1] Each year has three terms. Numbers indicate term hours.
[2] Hours per week for 18 weeks.
[3] Semester hours' credit.

VIII.—CLOCK HOURS DEVOTED TO EACH SUBJECT.

Number of clock hours devoted to each subject in certain institutions.

Subjects.	Oswego (N. Y.) Normal School.	Indiana State Normal School.	West Tennessee Normal School.	Bradley Institute.	Illinois State Normal University.	Northern Illinois Normal School.	Ohio University, Athens.	Miami University.	University of North Dakota.	Iowa State Teachers College.	University of Missouri.	Oshkosh Normal School.	Stout Institute.
ACADEMIC SUBJECTS.													
English:													
Composition	.....	120	48	120	60	72	54	108	108	60	.....	108	60
Literature	.....	.....	96	.....	.....	.....	.....	.....	72	.....	.....	.....	.....
Matriculation lectures	.....	.....	.....	.....	.....	.....	.....	.....	18	.....	.....	.....	.....
Science:													
Elementary natural science	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Biology	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Physics	.....	.....	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mathematics:							60						
Algebra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trigonometry	.....	.....	.....	.....	.....	60	.....	.....	.....	.....	.....	.....	.....
Shop mathematics	100	.....	.....	.....	.....	.....	.....	54	.....	.....	.....	.....	.....
Solid geometry	.....	.....	.....	.....	.....	.....	.....	54	.....	.....	.....	90	.....
Arithmetic	.....	.....	.....	.....	60	60	.....	.....	.....	.....	.....	.....	.....
Descriptive geometry	.....	.....	.....	.....	.....	48	.....	.....	.....	.....	.....	.....	.....
History:								72					
Typical industries	.....	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Industrial history	.....	60	.....	.....	60	.....	.....	.....	.....	.....	.....	.....	67½
Political economy	.....	.....	.....	.....	.....	60	.....	.....	.....	.....	.....	.....	.....
Economics	.....	.....	60	.....	60	.....	.....	.....	.....	.....	.....	.....	24
Sociology	.....	.....	.....	.....	.....	60	126	.....	.....	.....	.....	.....	.....
Electives, from studies listed above	.....	180	.....	.....	60	.....	36	.....	153	150	.....	.....	.....
Physical training	.....	.....	.....	Elec.	.....	.....	.....	Yes.	Yes.	Yes.	.....	.....	Yes
PROFESSIONAL SUBJECTS.													
Psychology:													
Elementary general	100	60	96	60	(1)	96	54	54	72	120	.....	.....	.....
Educational	.....	.....	120	.....	.....	.....	.....	.....	.....	.....	72	72	67½
Child study	.....	.....	48	.....	[1] 60	.....	.....	.....	.....	.....	.....	.....	.....
History of education	50	60	.....	60	.....	60	.....	.....	72	60	.....	.....	.....
General methods	50	60	60	60	60	.....	.....	54	.....	.....	54	.....	.....
History of manual arts	100	60	96	60	30	.....	36	36	36	60	18	90	.....
Organization of manual arts	100	60	48	120	.....	60	18	.....	.....	.....	.....	90	90
Administration of manual arts	100	.....	.....	.....	.....	.....	.....	54	.....	.....	36	.....	.....
Special methods	.....	.....	.....	180	60	.....	.....	54	.....	36	36	.....	90
Observation	.....	.....	.....	.....	.....	.....	.....	.....	.....	60	.....	.....	.....
Practice teaching	600	60	60	(2)	.....	240	96	72	.....	114	36	150	270
School administration	.....	96	.....	.....	.....	.....	54	.....	.....	.....	.....	.....	.....
School management	.....	.....	.....	.....	60	.....	36	.....	.....	60	.....	36	.....
Principles of education	.....	.....	.....	.....	.....	.....	54	.....	.....	.....	.....	.....	.....
Education electives	.....	.....	.....	.....	.....	.....	.....	.....	180	.....	.....	.....	.....
TECHNICAL SUBJECTS.													
Woodwork:													
Elementary	100	.....	180	120	240	360	140	324	180	168	90	180	202
Cabinet making	100	.....	[1] 180	120	120	.....	144	270	.....	120	216	450	.....
Turning	100	.....	.....	60	120	60	72	.....	90	48	.....	(3)	.....
Pattern making	100	.....	.....	.....	.....	.....	72	.....	.....	.....	108	.....	.....
Carpentry	.....	.....	(1)	60	120	.....	54	.....	[1] 90	.....	.....	(1)	.....
Finishing	.....	.....	.....	60	(2)	72	.....	(1)	.....	.....	.....	.....	.....
Upholstery	.....	.....	.....	60	.....	.....	.....	.....	.....	.....	.....	.....	.....
Metal work:													
Bench work	.....	.....	.....	120	.....	.....	.....	.....	.....	.....	.....	.....	[1] 135
Art metal	100	.....	.....	120	120	120	72	.....	.....	.....	108	90	.....
Sheet metal	.....	.....	.....	120	.....	.....	.....	.....	.....	60	.....	.....	.....
Forge	50	.....	.....	.....	.....	.....	.....	.....	126	.....	.....	180	.....
Machine shop	200	.....	.....	.....	.....	.....	108	.....	126	.....	216	.....	.....
Foundry	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Electives. [2] Twenty lessons. [3] Combined with other courses.

Number of clock hours devoted to each subject in certain institutions—Continued.

Subjects.	Oswego (N. Y.) Normal School.	Indiana State Normal School.	West Tennessee Normal School.	Bradley Institute.	Illinois State Normal University.	Northern Illinois Normal School.	Ohio University, Athens.	Miami University.	University of North Dakota.	Iowa State Teachers College.	University of Missouri.	Oshkosh Normal School.	Stout Institute.
TECHNICAL SUBJECTS—continued.													
Craft work:													
Bookbinding	.....	.....	.....	120	60	120	.....	.....	.....	.....	.....	45	....
Clay and pottery	.....	.....	.....	.....	120	.....	.....	.....	.....	.....	.....	.....	....
Leather	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	45	....
Drawing:													
Mechanical	200	.....	180	240	240	360	216	216	90	192	108	180	81
Machine	100	.....	.....	.....	120	.....	.....	.....	180	.....	.....	180	.....
Architectural	.....	.....	.....	120	120	.....	.....	.....	.....	.....	.....	180	[1]67½
Freehand	.....	.....	.....	120	60	.....	36	.....	.....	60	180	180	....
Design	100	.....	.....	240	60	60	.....	108	.....	60	.....	.....	....
Blackboard	.....	.....	.....	.....	60	.....	.....	.....	.....	.....	.....	.....	....
Woodwork design	.....	.....	.....	120	120	.....	36	108	[1]90	.....	.....	.....	....
Printing	200	.....	.....	.....	.....	360	.....	.....	.....	.....	.....	.....	(1)
Paper and cardboard	144	.....	.....	.....	60	.....	.....	.....	.....	60	.....	.....	67½
Construction material	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	90	....
Forestry	.....	.....	.....	.....	.....	.....	[1]36	.....	.....	.....	.....	.....	....
Electives, from studies listed above	.....	180	.....	.....	.....	.....	.....	108	.....	120	.....	1,360	375

[1] Electives.

IX.—NATURE AND SCOPE OF VARIOUS SUBJECTS.

The following quotations from statements published in the catalogues of the institutions noted are given to indicate the nature and scope of the instruction in certain subjects.

HISTORY OF EDUCATION.

A study of the evolution of educational ideals, with special attention to the work of such reformers as have distinctly influenced modern educational practice. A limited study of educational classics is included.

(2 semester hours' credit, Peru (Nebr.) Normal School.)

A thorough and somewhat critical study of educational theory and practice from primitive days to the present time. Great educational movements rather than men engage the attention. The course seeks to trace the development of thought-life and civilization.

(4 hours' credit, University of North Dakota.)

A study of educational conditions and theories of ancient and mediæval times. Special attention devoted to contributions of Locke, Comenius, Rousseau, Pestalozzi, Herbart, and Froebel. Detailed study of educational leaders of nineteenth century. History of education in the United States emphasized during latter part of course.

(1 term, 60 hours, St. Cloud (Minn.) Normal School.)

Educational ideals, ancient and modern; education as related to civilization, educational classics, special educational conditions, national systems of education, current educational problems in the light of the experiences of the past.

(5 term hours, Iowa State Teachers College.)

General survey emphasizing factors contributing to an intelligent conception of present conditions. A typical oriental country, Greece and Rome; early Christians; Middle Ages, Renaissance; Bacon, Comenius, Locke, Rousseau, Pestalozzi, Froebel, Herbart, Spencer, Mann, and modern reformers. Development of schools since renaissance, modern systems, present-day tendencies.

(5 semester hours, Trenton (N. J.) Normal School.)

Introduction to education. An elementary course dealing with general educational problems and scientific methods of solving those problems. Reports on observations in schools required of each member of the class.

(1 major, University of Chicago.)

The aim of this course is to discover causes and trace out important courses of educational development in the past as a basis for the study of present educational problems. (1 major, 60 class hours, Bradley Institute.)

PSYCHOLOGY.

Two terms are devoted to the elements of the subject from the educational point of view. (De Kalb (Ill.) Normal School.)

Essential facts and fundamental laws of human behavior; foundation courses for junior and senior courses in the subject. Topics, physiological basis of education; sensations, perception, association, attention, apperception, memory, imagination, instinct, habit, judgment, emotions, and will.

(Followed by courses in applied psychology and history of education, or by applied psychology and practice teaching. (1 unit, 5 term hours for each course, Sam Houston Normal Institute, Huntsville, Tex.)

The chief topics presented are the physical basis of intellect, character, and skill: The nervous system; sources of human behavior: original tendencies and their modifications; laws and conditions of learning; individual differences; their causes and treatment; measuring results in education; genetic psychology—characteristics, mental and physical, of different stages of child development, scientific method of child study which every teacher should practice.

(10 semester hours, Trenton (N. J.) Normal School.)

Descriptive, historical, analytic; simple experiments without elaborate apparatus; nervous system, the senses, the intellectual powers. Emotion, volition, the esthetic judgment. Lectures, texts, themes, reports, and reviews.

(10 term hours, Iowa State Teachers College.)

The nature of experience; how we gain experience; the nervous system as a machine; forms of reaction; the processes of the conscious life; the use of the conscious process in construction; notions derived from the muscular sense; motor image in construction; importance of true perception in construction; typical judgment in design, mechanical drawing, bench work, forge work, foundry, machine work. Association of ideas, complex ideas; inductive and deductive thinking; application of organized ideas to construction; working according to definite plan; geometry of tool grinding; function of sketch, working drawing, model; mental element in economy of construction, skill, and efficiency; nature of the construction lesson; handling children in the construction class.

(4 semester hours, Oshkosh (Wis.) State Normal School.)

A course in general psychology given with special reference to education and teaching. Discussion, reading, and written work.

(1 major, 60 class hours, Bradley Institute.)

This work is limited to a consideration of principles, fundamental in character, and to the application of these principles in the actual work of teaching. Time does not

permit the study of psychology as a cultural subject. Special attention is given to the psychology of attention, habit, and will. Those principles of pedagogy are considered which may be shown to have a practical application in the teacher's work. Practical exercises are given throughout the course requiring a conscious application of the psychological and pedagogical principles studied.

(45 minutes daily, 18 weeks, Stout Institute.)

HISTORY OF MANUAL TRAINING.

An extensive study of the development of the manual arts, trade, and industrial education. A brief review of the educational theory of Pestalozzi, Froebel, and other educators. Attention is given to the early apprentice system, guild, manual labor movement, colonial poor laws, Russian and Swedish systems, manual training movement, industrial arts and vocational education, including a study of the Indiana and Federal vocational legislation.

(1 term credit, 12 weeks' course, Indiana State Normal School.)

A study of the place of manual training in education; its relation to the social and psychological life of the child; its place in the curriculum; history of development of manual arts both in Europe and United States.

Lesson plans, observation practice teaching under criticism.

(4 periods weekly, 2 terms, West Tennessee Normal School.)

These courses deal with the history of manual training in the public schools, in relation to the curriculum; manual training systems, courses of study; analysis and presentation of problems in construction, and other questions of importance to the teacher of manual training.

(5 and 3 hours' credit, two terms, Iowa State Teachers College.)

Early educational history; Pestalozzi, effects of his work; education in Germany, France, and England with reference to industrial education and manual training; Della Vos and the Russian system of manual training; Cygneaus, Salamon, and the sloyd movement; beginning and development in the United States; industrial education in the United States and abroad; legislation pertaining to industrial education; comparison of trade, vocational, and technical schools; sources of literature bearing on this phase of public school work.

(3 single periods weekly for 20 weeks,
Kansas State Manual Training Normal School.)

The history of manual training in our own and foreign countries; the sloyd system; the Russian system; trend of manual training, its weakness and strength; how to avoid the weaknesses and build up its strength; point of view in industrial and vocational education; part-time, cooperative, trade, night, and continuation schools.

(3 semester credit hours, Ohio State University.)

The emphasis is placed upon the historical development of industrial education; studies of a specific type of schools, their purpose and organization, and the vocational guidance movement. (45 minutes daily, 18 weeks, Stout Institute.)

The course treats of the purpose, history, organization, and promotion of industrial education and its articulation with the traditional school system and industry.

(1 major, 4 periods weekly, 12 weeks, University of Chicago.)

A brief review of the educational theory and practice of Pestalozzi, Froebel, and other educational reformers; educational handwork in European countries; development of manual training, art instruction, and industrial education in the public schools of the United States; present-day problems relating to the manual arts in both general and vocational education.

(1 major, 5 periods weekly, 12 weeks, Bradley Institute.)

The development of our present manual training work is traced from the time of early European education, showing how it has been influenced by the work of various educators and educational movements in different countries.
(One-half credit, 5 recitations weekly for six weeks, Kent, Ohio, State Normal College.)

A study of the educational conditions that led to the manual training movement and its development. Outside reading, written reports, lectures, and open discussions of problems that arise in organizing the work.
(2 semester hours, Ohio University, Athens, Ohio.)

Evolution of historic manual arts movements in Europe and America.
(1 semester hour, University of Missouri.)

A study is made of the history of the manual training movement in Europe and its development in the United States with reference to its bearing on present problems.
(1 semester hour, University of North Dakota.)

The manual training and industrial education movement.
(2 semester hours, University of Wisconsin.)

This course follows the efforts of the educational reformers in Europe in introducing the manual arts into the schools. The theory and practice of Comenius, Rousseau, Pestalozzi, Fellenberg, and others are reviewed, followed by a study of the more successful work in modern times of Cygneaus, Salamon, and Della Vos. The history of the manual arts in the United States and the development by the various movements which have produced educational and vocational courses will be followed carefully.
(Minor, or one-half credit, Illinois State Normal University, Normal.)

A brief history of the development of industrial education, including the present status; theory, educational, social, and economic; courses of study: administration of manual training and vocational school work; types of vocational schools—prevocational, trade continuation, cooperative, technical high, vocational guidance.
(3 semester hours, Pennsylvania State College.)

History of manual training will be given the first quarter.
(5 term hours, 12 weeks, Northern Normal and Industrial School, Aberdeen, S. Dak.)

The history and development of the practical arts in education, including the manual arts, home economics, industrial education, and vocational guidance. Brief reference to attitude of ancient nations toward the practical in education, emphasis placed on educational reformers; consideration of modern tendencies in education.
(3 semester hours' credit, Miami University.)

A general course covering a brief history of the development of industrial and vocational education in Europe and America. Detailed study of typical examples of vocational education in the elementary and secondary field, including the problem of vocational information or direction. Especial attention to Iowa conditions.
(2 semester hours, State University of Iowa.)

X.—PRACTICE TEACHING.

The results of an inquiry concerning facilities for practice teaching and the character of supervision available in certain institutions may be summarized as follows:

1. Pupils in classes taught by practice teachers come from:
   (*a*) Model or training schools in 12 cases.
   (*b*) Public schools not connected directly with the normal school or college in 10 cases.
   (*c*) From both model school and the public school in 6 cases.
   (*d*) Private school in 5 cases.
   (*e*) Parochial school in 1 case.

2. Teaching of class goes on:
   (*a*) In the training or model school shop in 16 cases.
   (*b*) In the public school in 8 cases.
   (*c*) In both (*a*) and (*b*) in 4 cases.
3. Teaching is done under supervision of:
   (*a*) Training school supervisor, 3 cases.
   (*b*) Head or member of manual arts department faculty, 21 cases.
   (*c*) City supervisor of manual training, 6 cases.
4. Course of study, equipment, supplies, etc., under direction of:
   (*a*) Department of manual arts, 18 cases.
   (*b*) Department of education, 7 cases.
   (*c*) City supervisor, 4 cases.
5. Practice teaching is done in one or more lines of work:
   (*a*) One line, 2 cases.
   (*b*) Two lines, 10 cases.
   (*c*) Three lines, 4 cases.
   (*d*) Four lines, 1 case.
   (*e*) Six lines, 1 case.
   (*f*) Eight lines, 1 case.

Of the lines of work in which practice teaching is done, benchwork in wood is most commonly found. Next in order are mechanical drawing, wood-turning, and lastly the common branches.

6. Number of lessons actually taught:
   (*a*) 12 in 1 case.
   (*b*) 24 in 3 cases.
   (*c*) 36 in 4 cases.
   (*d*) 40 to 60 in 4 cases.
   (*e*) 90 to 96 in 2 cases.
   (*f*) 112, 126–180 in 1 case.
7. Recognition of teaching experience for credit in substitution for practice teaching:
   No, 17 cases.
   Yes, 3 cases.
   Partial, 1 case.
   Upon examination, 2 cases.
8. Character of lesson plan prepared by student:
   Outline, 3 cases.
   Detailed, 12 cases.
   Written, 7 cases.
   Project plan, 2 cases.
9. Observation work.
   Briefly, 6 to 8, 8 to 10 lessons.
   One term (12 weeks), 4 cases.
   One semester (18 weeks), 2 cases.

NOTE.—This observation work is done (*a*) preparatory to teaching, (*b*) paralleling methods courses and teaching, (*c*) subsequent to practice work. Reports concerning value of this feature of the work vary from "none" to "very great."

XI.—TYPICAL THREE-YEAR COURSES OF STUDY.

The following outlines are arranged to show the number and nature of the subjects included in three-year courses offered in two institutions. The numeral following a subject indicates hours per week.

OSHKOSH (WIS.) NORMAL SCHOOL.

First Year.		*Second Year.*		*Third Year.*	
Psychology	2	History of manual training	5	Prescribed:	
English composition	3	Courses of study	5	Literature and themes	5
Mechanical drawing	10	School management	2	History of typical industries	5
Wood work and wood turning	10	Practice teaching	3	Chemistry and physics of typical industries	10
Forging	10	Advanced cabinet making	15		
Freehand drawing	2	Crafts and applied design	5	Electives:	
Applied design	5	Vocational mathematics	5	Seven (7) hours of class work daily, from the following—	
Psychology	2	Organization of manual training	5	Mathematics.	
English composition	3	Practice teaching	3	History.	
Mechanical drawing	10	Machine shop	15	Physics.	
Cabinet making	10	Craft work	5	Chemistry.	
Pattern making	2	Mechanical drawing and machine design	6	Manual arts.	
Foundry practice	10	Construction and details	6		
Freehand drawing	2	Ten weeks commercial shop experience.			
Applied design	5				

BRADLEY POLYTECHNIC INSTITUTE.

First Year.		*Second Year.*		*Third Year.*	
History of education	5	Vocational woodwork or metal work	30	History of manual arts	5
Wood work	10	Agricultural drafting or machine drafting	10	Teaching mechanical drawing	5
Mechanical drawing	10			Design	10
Metal work	10	Vocational woodwork or metal work	20	Teaching woodwork	10
English composition	5	Economic history	5	Vocational woodwork or metal work	10
Wood finishing	10	Architectural drafting or machine drafting	10	Teaching manual arts	5
Upholstery	10			Design or wood carving	10
Freehand drawing	10	Pattern making	10	Woodwork design	10
Sheet metal work	10	Vocational wood work or metal work	20	Wood or metal shopwork	10
Psychology	5	Architectural drafting or machine drafting	10	English composition	5
Carpentry, or wood turning	10			Furniture making	10
Mechanical drawing	10			Organization of manual arts	10
Art metal work	10				

XII.—FOUR YEAR CURRICULA LEADING TO THE B. S. DEGREE.

The following outlines are arranged to show the number and nature of the subjects included in the four-year courses offered in typical institutions:

OHIO STATE UNIVERSITY.

First year.

First semester.	Hours.	*Second semester.*	Hours.
English	2	English	2
Mathematics	3	Mathematics	3
Art	1	Art	2
Art	2	Shopwork	2
Engineering drawing	4	Engineering drawing	3
Foreign language	4	Foreign language	4
Physical education	1	Physical education	1
Military drill	1	Military drill	1

Second year.

English	3	English	3
Foreign language	4	Foreign language	4
Psychology	3	Psychology	3
Shopwork	3	Shopwork	3
Shopwork	2	Shopwork	2
Military drill	1	Military drill	1
Elective	2 or 3	Elective	2 or 3

Third year.

Chemistry or physics	4	Chemistry or physics	4
Sociology	3	Sociology	3
Psychology	2	Psychology	3
Manual training	2	Manual training	2
Shopwork	3	Shopwork	2
Elective	2 to 4	Elective	3 or 4

Fourth year.

First semester.	Hours.
History of education	3
Manual training	3
Principles and practice	3
School administration	3
Elective	3 to 6

Second semester.	Hours.
History of education	3
Manual training	3
Principles and practice	3
Elective	6 to 9

STOUT INSTITUTE.

First year	Hours.
Shopwork and drawing	20
Psychology	5
English composition	5
English, directed readings	1
American history	5
Military drill	R
Gymnastics	R
Total	36

Second year.	Hours.
Shopwork and mechanical drawing	20
Organization of industrial arts	1
Teaching industrial arts	3
Observation and practice teaching	4
English, directed reading	2
Public speaking	2
Hygiene and sanitation	1
Citizenship	2
Military drill	R
Gymnastics	R
Total	36

The 20 hours of shopwork in the first year will be in three or more of the following subjects, to be determined by the director:

Elementary woodwork.	Mechanical drawing.	Printing.
Carpentry.	Electrical work.	Architectural drawing.
Bricklaying.	Wood turning.	Sheet-metal work.
	Plumbing.	

The 20 hours of shopwork in the second year will be in three or more of the following subjects, to be determined by the director:

Millwork.	Machine work.	Pattern making.
Wood finishing.	Gas engines and automobile repairs.	Foundry work.
Forging.	Cabinetwork.	Machine drawing.

Third year.	Hours.
Shopwork, drawing, and design	10
Advanced psychology	2
Vocational education	2
English	3
Modern history	3
Modern industries	2
Mathematics	4
Sociology	3
Physics	5
Total	34

Fourth year.	Hours.
Shopwork and drawing	10
Administrative problems	2
Strength of materials	3
Industrial chemistry	4
Economics	5
English	2
Industrial history	3
Principles of education	3
Thesis	2
Total	34

The hours indicated are semester hours required. One hour of recitation or two hours of shop or laboratory work, with such outside preparation as may be necessary once a week for 18 weeks, constitute a semester hour.

The 10 hours required shopwork and drawing in the third year and 10 hours in the fourth year will be a continuation of the shopwork in the first and second years.

In the fourth year five hours of additional shopwork may be substituted for the same number of hours of other work, when approved by the director.

MIAMI UNIVERSITY.

First year.

First semester.	Hours.
Object drawing and design	1
Mechanical drawing	2
Psychology	3
Rhetoric and composition	3
Woodworking	3
Trigonometry	3
Physical education	1

Second semester.	Hours.
Object drawing and design	1
Mechanical drawing	2
Psychology	3
Rhetoric and composition	3
Woodworking	3
Shop mathematics	3
Physical education	1

Second year.

First semester.	Hours.
General chemistry	4
Constructive design	1
Descriptive geometry	2
History of manual arts	3
Cabinetmaking	3
Wood turning	2
Physical education	1

Second semester.	Hours.
General chemistry	4
Constructive design	1
Descriptive geometry	2
Cabinetmaking	3
Pattern making	2
Physical education	1
Elective	3

Third year.

First semester.	Hours.
Architectural drawing	2
Principles of teaching	3
Paper and cardboard construction or sheet-metal work	2
Concrete construction	2
Physics	4
Sociology	3

Second semester.	Hours.
Topographical drawing	2
Special methods in industrial arts	3
Bookbinding or art metal work	2
Frame building construction	2
Physics (freshman)	4
Sociology	3

Fourth year.

First semester.	Hours.
Machine design	2
Pottery or printing	2
Forging	2
Teaching industrial education	2
Labor problems	3
School organization in secondary schools	3
Machine design	2

Second Semester.	Hours.
Pottery or printing	2
Bench metal work	2
Organization and administration of vocational education	3
Sociology in rural communities	3
Teaching industrial education	2

Students in industrial education are advised to spend one or more summers during their course in practical work in the industries. The demand for teachers who have had industrial work in commercial shops is increasing each year.

The students may make any one of the following combinations with the course in industrial education: Industrial education and (*a*) mathematics, (*b*) physics, (*c*) agriculture, or (*d*) physical education.

UNIVERSITY OF WISCONSIN.

First year.

First semester.	Hours.
English	3
Language or science and mathematics	3–5
History or mathematics	3
Drawing (freehand or mechanical or both)	3–6
Electives	3
Total	15–17

Second semester.	Hours.
English	3
Language, or science and mathematics	3–5
History or mathematics	3
Drawing (freehand or mechanical or both)	3–6
Electives	3
Total	15–17

Second year.

First semester.	Hours.
Language or science and mathematics	3–5
History or mathematics	2–5
Drawing (if not taken in freshman year)	3
Manual arts:	
Freehand drawing (advanced)	3–6
Elementary woodwork	
Wood turning	
Care of machines	
Electives	4–6
Total	15–17

Second semester.	Hours.
Language or science and mathematics	3–5
History or mathematics	2–5
Drawing (if not taken in freshman year)	3
Manual arts:	
Industrial arts design	3–6
Advanced woodwork	
Wood finishing	
Pattern making	
Electives	4–6
Total	15–17

Third year.

First semester.	Hours.	*Second semester.*	Hours.
Psychology, history, or mathematics	2–5	Psychology, history, or mathematics	2–5
Education	2–3	Education	2–3
Manual arts:		Manual arts:	
Public school drawing practice	5–7	Public school drawing methods	5–7
Decorative metal		Public school, drawing practice	
History and applied design		Decorative metal	
Design seminary		History and applied design	
History and literature of manual arts		Design seminary	
Organization and administration		Vocational education and guidance	
Industrial shop courses		Industrial shop courses	
Clay and pottery		Clay and pottery	
Electives	4–7	Electives	4–6
Total	15–17	Total	15–17

Fourth year.

First semester.	Hours.	*Second semester.*	Hours.
Thesis	2	Thesis	2
Education	3–4	Education	3–4
Manual arts:		Manual arts:	
Clay and pottery or decorative	8–11	Clay and pottery or decorative metal (advanced)	8–11
Metal (advanced)		Design seminary	
Design seminary		Illustration	
Illustration		Teaching and supervision	
Teaching and supervision		Primary handwork	
Seminary in manual arts		Seminary in manual arts	
Observation and practice teaching		Special methods	
Industrial shop courses		Industrial shop courses	
Electives	3	Electives	3
Total	13–17	Total	13–17

General summary of requirements.

	Hours.
English	6
Language, or science and mathematics	20
History	10
Psychology and education	10–18
Drawing	9–12
Manual arts	32–40
Electives	10–33
Major: Minimum	40
Minor: Minimum	17

UNIVERSITY OF MISSOURI.

Department.	Course number.	Course title.	Hours credit, semester— I.	Hours credit, semester— II.
FRESHMAN YEAR.				
English	1a or 1b	English composition and rhetoric	3	3
History	1a	European history	5	.....
Manual arts	1a or 7a	Woodwork	2	.....
Manual arts	1b or 7b	Mechanical drawing	.....	2
Physical education or military science.	1	Physical training	0	0
Foreign language	.....	Elective	5	5
Physical science	.....	Elective	.....	5
			15	15
SOPHOMORE YEAR.				
Mathematics	3a	Trigonometry	5	.....
Sociology	1a	Elementary sociology	5	.....
Preventive medicine	1b	Preventive medicine	.....	2
Manual arts	2a	Metalwork	2	.....
Theory and practice of art	2b	Introduction to art	.....	5
Education	102a	Educational psychology	4	.....
Biology science	.....	Elective	.....	5
Elective	.....	.....	.....	3
			16	15

UNIVERSITY OF MISSOURI—Continued.

Department.	Course number.	Course title.	Hours credit, semester— I.	Hours credit, semester— II.
JUNIOR YEAR.				
Manual arts	3b	Pattern making		2
Manual arts	4a and 14b	Machine work	2	2
Manual arts	5a	Tools, materials, and shop practice	1	
Manual arts	8a	Machine drawing	3	
Mechanical drawing	4a	Architectural drawing	2	
Education	120	History of education	2	2
Education	130a	Theory of teaching	3	
Education	140b	Teaching of manual arts		2
Manual arts	190b	Elementary millwrighting		1
Elective			2	6
			15	15
SENIOR YEAR.				
Education	160b	School economy		2
Education	165a	Administration of manual arts	2	
Education	180	Practice teaching	3	3
Manual arts	180b	History of manual arts		1
Elective in education			1	
Elective			9	9
			15	15

PENNSYLVANIA STATE COLLEGE.

First year (in engineering).

First semester.	Credits.	*Second semester.*	Credits.
Descriptive geometry	3	General chemistry	6
Modern language	3	Mechanical drawing	3
Freehand drawing	1	Modern language	3
Trigonometry	5	Analytic geometry	5
Military drill and gymnasium	2	Military drill and gymnasium	1
Composition	3	Argumentation	3
Wood turning and metal work	1	Woodworking for elementary schools	1
Woodworking for elementary schools	2		

Second year.

Mechanical drawing	1	Modern language	3
Modern language	3	Design	2
Foundry practice	2	Shop problems	3
Forging	2	Wood turning	2
Elements of machinery	2	Industrial materials	2
Construction and design	2	Elements of machinery	2
Military drill	1	Military drill	1
Mechanics and heat	3	Oral composition or English literature	3
Advanced composition	3		
Mechanical drawing	1		

Third year.

Working drawings	2	Principles of education	3
History of education	3	American economic history	3
English economic history	3	Art metal work	2
Furniture design	1.5	Industrial materials	2
Machine-shop practice	1	Machine-shop practice	2
Machine-shop organization	3	Furniture construction	2
Time and motion study	1	Practice teaching of woodwork	1
Psychology	3	Logic	3
Electives	3	Electives	2

Fourth year.

Principles of economics	3	Secondary education	3
Class teaching and management	3	Thesis	2
Pattern making	2	Organization and equipment of industrial education	2
Principles of industrial education	3	Clay and cement work	2
Practice teaching of wood turning	1	Practice teaching of pattern making	1
Practice teaching of forging	1	Vocational woodwork or Vocational metal work	3
Vocational woodwork or Vocational metal work	3	Municipal government	3
Practice teaching or Foundry practice	11	Electives	3
Industrial management	3		

INDIANA STATE NORMAL SCHOOL.

Freshman Year.

First term.	*Second term.*	*Third term.*
Shopwork.	Shopwork.	Shopwork.
*Mechanical drawing.	*Freehand drawing.	*Mechanical drawing.
*Applied arithmetic.	*Applied algebra.	*Applied geometry.
English.	English.	English.

Sophomore Year.

Shopwork.	Shopwork.	Shopwork.
*Mechanical drawing.	History of education.	History of education.
*Applied trigonometry.	*Mechanics.	*Typical industries.
Psychology.	Psychology.	†Vocational psychology.

Junior Year.

Shopwork.	Shopwork.	Shopwork.
*Architectural drawing, or	*Architectural drawing, or	*Architectural drawing, or
*Machine design.	*Machine design.	hygiene and sanitation.
General chemistry.	General chemistry.	*Applied chemistry.
*Industrial history.	Economics.	Economics.

Senior Year.

Shopwork.	Shopwork.	Shopwork or wood finishing.
*Constructive design.	Installation of machinery.	†Special methods in teaching shop subjects.
*Applied chemistry.	*Applied physics.	*Applied physics.
†Theory of industrial and vocational education.	†Organization and management of shop courses.	†Practice teaching.

BRADLEY POLYTECHNIC INSTITUTE.

I. The following curriculum gives a broad view of the manual arts field, as well as considerable emphasis to general education. It is designed for teachers, who will be expected to offer a combination of academic and technical subjects. Upon consultation with the adviser, students will choose their electives in such a manner as will prepare them for teaching one or more high-school academic subjects in addition to manual arts.

The curriculum includes three main divisions: (1) Required technical subjects, 16 majors; (2) required general and professional subjects, 22 majors; (3) electives, 10 majors.

The electives are taken in the second, third, and fourth years, from the following subjects:

Biology.	English.	Mathematics.
Chemistry.	History.	Physics.
Education.	Languages.	Coaching athletics.

*Approved related technical subjects, in which 12 credits are required.

†Special professional subjects, in which 5 credits are required. Students should consult with the head of the department of industrial arts as to the required 12 shop credits and the order in which they should be taken up each term, who will outline the work by terms according to the particular needs of each student. Individual programs will be made for those who enter upon the course with advanced standing and for those who, for good reason, find it impracticable to follow the course term by term as outlined. Special programs will also be made for students who may be in attendance during the summer quarters. Students enrolling in the industrial arts course or any of the special vocational courses are strongly urged to observe carefully the suggested outlines in planning each term and year's work, especially the prescribed work, and under no circumstances to permit the required subjects to accumulate for the latter part of the course.

The remainder of the curriculum is as follows:

Technical subjects.	*General and professional subjects.*
First year.	
Mechanical drawing. Freehand drawing. Woodworking. Forging. Sheet metal work. Art metal work.	English composition. Economic history. Shop mathematics. Physical training.
Second year.	
Architectural drawing. Theory of design. Machine drawing. Pattern making.	Chemistry. Mathematics. Physical training.
Third year.	
Interior decoration. Woodwork design. Furniture making.	Physics. Psychology. History of education. Advanced English composition. Physical training.
Fourth year.	
	History of manual arts. Equipments. Administration of manual arts. Vocational guidance. Social science. Teaching manual arts. Teaching mechanical drawing. Teaching woodworking. Practice teaching.

II. A curriculum giving special emphasis to technical courses and related science and mathematics for the preparation of teachers of drafting in the larger city high schools and vocational schools.

Required technical, 27 majors.	*Required general and professional, 22 majors.*
First year.	
*Mechanical drawing. Free-hand drawing. Woodworking. Forging. Sheet metal. Art metal.	English composition. Economic history. Shop mathematics. Physical training.
Second year.	
Pattern making. Foundry. Woodworking machinery. Machine shop (one major) Free-hand drawing.	Chemistry (two majors). Mathematics. Descriptive geometry. Physical training.
Third year.	
Architectural drafting. Machine design Machine shop (one major).	Physics 2. Psychology. History of education. Advanced English composition. Physical training.

* Shop, drawing, and science; double periods daily.

Required technical, 27 majors.	*Required general and professional, 2⅔ majors.*
Fourth year.	
Theory of design. Architectural drafting. Machine drawing. Furniture making.	History of manual arts. Equipments. History of architecture. Social science. Teaching manual arts. Teaching mechanical drawing. Practice teaching.

Other curricula offered at Bradley Polytechnic Institute include the following, four years in length:

1. A curriculum designed for teachers in (*a*) junior high schools, (*b*) agricultural high schools, and (*c*) automobile repair, giving opportunity for electives from the available technical courses, enabling the teacher to specialize in automobile repair, or to prepare to teach from two to four lines of industrial work.

2. A curriculum for prospective teachers of woodworking in technical high schools and vocational schools.

3. A curriculum emphasizing technical work in shop practice, related drawing, mathematics, and science for teachers of metal working in the larger city high schools and vocational schools.

4. A curriculum for prospective supervisors and administrative officers of industrial education. Candidates must present evidence of (*a*) two years of approved study in manual arts and academic courses in college or normal school, (*b*) general fitness for supervisory work, and (*c*) actual teaching experience in technical subjects.

XIII.—THE GENERAL PROBLEM.

A study such as this shows considerable variation in the subjects actually included in the curricula set up for prospective teachers. There is, however, a growing tendency toward a common standard, and the two-year courses are coming to have many elements in common both as to subject matter and methods of procedure. For example, in many institutions the stock subjects in education, such as psychology and history of education are treated in much the same way. English composition, woodworking, and mechanical drawing are likewise treated much alike by the various schools. Practice teaching varies considerably as to character, length of time required, and conditions under which the teaching is done. State legislation is taking hold of this matter, and greater emphasis is certain to be placed upon this phase of the teacher's preparation.

One tendency in the field of general education is becoming noticeable in the special field under consideration. More and more the two-year normal graduate is finding his field of work in the grammar grades or the smaller high schools, while the teachers for the larger high schools are being trained at the colleges and universities in increasing numbers. It is to be expected, therefore, that high-school positions will be held generally by men with the training represented by the bachelor's degree, while the normal-school graduate more often is located in the elementary school. This tendency toward four-

year programs is naturally moving more rapidly in the colleges and universities than in the normal schools, where the facilities for offering a four-year program do not exist. A study of tle four-year plans outlined on the foregoing pages shows the most recent developments.

The universities usually administer these courses either (1) in the college of education, thus making use of the model (high or elementary) school facilities, or (2) in the college of engineering, utilizing the engineering shops.

In the former case the institution is apt to place much emphasis upon education courses and such work as usually receives consideration in the average college course, thus giving a meager opportunity for actual shop practice. The latter oganization places the emphasis upon engineering courses in science and mathematics, which very often are theoretical and unrelated to the work in hand. In neither case is prime consideration given to the man being trained, with reference to his having, or acquiring, the skill required as the basis for effective teaching.

The supply of qualified teachers will not meet the demand for some time to come, because (1) the number needed is rapidly increasing and (2) the means of preparation are limited; again, the conception of what these teachers should be is not yet clear to many school executives. An analysis of the problems must make evident the need of one with *ability to teach the things he himself can actually do*. This means that he can not be an individual, school trained, exclusively, whose knowledge and skill in shop courses are such that skilled workmen will not consider it of value. The requirements laid down by the Smith-Hughes Act for the qualifications of teachers make impossible the continued employment of teachers whose preparation does not include sufficient practice in the line of work to be taught to give him the degree of skill, resourcefulness, and knowledge possessed by a workman of journeyman rank.

On the other hand, this law has opened up a new danger in that many school officials are swinging to the opposite extreme in their belief and practice concerning teachers for technical work. It is becoming all too common to "pick up" a mechanic from the trades, whose only merit may lie in the fact that he draws a skilled-workers wages. With the specialization of modern industry, and the haphazard method of securing employment as a mechanic, it is not an easy matter to find by the most diligent search a man of the type represented by the old master workman who taught his trade to one or more apprentices. Having found this man, we still have the problem of training him to be an effective teacher with the spirit, the point of view, and the attitude toward education, toward industry, and life in general which we need in leaders of boys and young men.

If the school has not succeeded in properly preparing its prospective teachers on the technical side, it is equally true that industry organized for the production of articles of commercial value can not at the same time produce teachers for the schools of the nation. Clearly, then, there must be a new attempt at a solution of the problem. Several of the four-year curricula given in this paper are recent attempts of this kind.

The program of the State College of Pennsylvania is clearly the result of an engineer's analysis of the problem, and the curriculum has many elements in common with the engineering curricula of that institution. The Stout Institute program is a recognition of the junior high-school movement, and as such is most appropriate in its service to these high schools becoming common throughout the country. As a rule the university programs (Wisconsin and Missouri) cover in brief fashion a variety of shop and drawing courses, with an insufficient amount of time spent upon any one line to make more than a mere novice of the student. The programs at Bradley Institute have been developed with the kind of positions open to the graduate in mind. Since an adequate supply of competent men can not be had from industry, and those that do come are not ready to teach, greater emphasis is placed upon technical work of a practical character. On the other hand, there is a body of subject matter of general and professional character which should be common to any course.

Finally, there is no valid reason why teacher-training courses for the technical subjects should not be made up of elements selected because of their contribution to the end or ideal in mind. This means that tradition need not be followed slavishly in organizing the plan. There is surely no reason why two years of foreign language should be made part of the requirement when the time may be spent to greater advantage on lines of work directly contributing to effective teaching.

A report such as this is not the place to theorize at length, yet the student of catalogues and announcements of curricula can not escape the feeling that teacher-training institutions need to make a more thorough analysis of the work industrial teachers must do and to arrange curricula which directly and specifically fit individuals for their work. Only by such procedure can an adequate supply of teachers who know their subject and who can teach what they know to others be assured for the schools now established and for those sure to be needed in the near future.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

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KINDERGARTEN SUPERVISION IN CITY SCHOOLS

By

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BUREAU OF EDUCATION

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, August 20, 1918.

SIR: In 1914–15 the Bureau of Education made a study of kindergarten training schools, the results of which were published in Bulletin, 1916, No. 5. Following the publication of this bulletin a number of supervisors of kindergartens throughout the United States requested the Bureau of Education to make a study of kindergarten supervision similar to that of training schools. The results are presented in the accompanying report. Study of the material herewith shows that the custom among school officials is to class supervisors of kindergartens with supervisors of special *subjects*, such as music, art, manual training, physical education. This listing implies that the kindergarten is a subject rather than a stage or phase of education. It is hoped that one of the results of the publication of the manuscript transmitted herewith will be to correct this classification by bringing to light the true function of kindergarten supervision, which is that of dealing with teachers and children, not with a subject.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

KINDERGARTEN SUPERVISION IN CITY SCHOOLS.

1. INTRODUCTION.

Kindergarten supervision as a distinct department of school organization is just reaching the stage of historic self-consciousness. Little, if any, literature on the subject is discoverable, although the office of supervisor, or inspector, or director, has always been maintained in connection with both public school kindergartens and privately supported kindergartens during the 50 odd years of their existence in the United States.

From the first the form of kindergarten procedure has differed so radically from that of the usual public school that the services of some one specially trained in kindergarten theory and practice were necessary to the success of kindergarten classes; while in the case of a group of kindergartens under the control of an association, it was imperative that a trained kindergartner of maturity and judgment should become responsible to the association for the progress of the children and the maintenance of high standards among the kindergarten teachers, as well as for the practical details pertaining to the housing and equipment of the classes.

In the early days there seems to have been no dividing line between the office of training teacher and that of supervisor. One person performed both functions. Because very few training schools were in operation in the seventies and eighties of the past century, the supply of kindergartners was inadequate to the demand. The introduction of kindergartens into a public school system always involved the problem of procuring trained teachers. Out of the exigencies of the situation grew the custom of engaging a kindergarten director who could give instruction to young women students and also assume general oversight of the kindergartens as fast as they were opened.

According to this arrangement, the morning hours of the students were devoted to practical work with the children; those of the supervisor to visiting and directing the practice in the kindergartens. Two or three afternoons a week the supervisor instructed the students in the theory and manipulation of the kindergarten gifts and occupations, and in the interpretation of Froebel's Mother Play.

The St. Louis arrangement, as described by Dr. W. T. Harris in one of his early reports, was of this type. From 1873 to 1876 Miss Susan Blow had freely given her services as training teacher and supervisor. For the school year 1876–77, Dr. Harris reported:

> Two supervisors have been appointed, Mrs. C. J. Hildreth and Miss Cynthia P. Dozier, who inspect the kindergartens and make weekly reports to the superintendent, give weekly lectures to the assistants, besides conducting each a kindergarten.

In a series of articles entitled, "Leaves from the Notebook of a Supervisor," Miss Dozier herself gives an interesting account of the experiences of those early days.[1]

In a later report of the kindergartens in St. Louis, Dr. Harris made this comment:

> In order to make it worth while for volunteers to join the system, as well as to secure the development of the salaried teachers, it is necessary to have two persons of superior ability who can give instruction once a week on the theory and practice (the gifts and occupations) of Froebel's system.

Another historic sidelight is furnished by a report presented in 1881 by Mr. James MacAlister, superintendent of public schools in Milwaukee, to the executive committee of the board of education, relative to the establishment of public kindergartens in that city. In regard to organization, Mr. MacAlister said:

> I beg to suggest that the best mode of organizing the system would be the appointment of a fully competent person to act as director of the kindergarten now in operation at the normal school and chief director of the kindergartens as they are opened throughout the city. It would be her duty to train the assistants, to give the necessary instruction by lecture and otherwise at the normal school kindergarten, and to supervise the work wherever carried on. * * * I need say nothing as to the importance of securing a chief director of ability and education, of thorough knowledge, and an enthusiast in the work. Much will depend on this selection, but I have no doubt a person suited to the duties and responsibilities can be found.

The following year, Miss Sarah A. Stewart was appointed to fill the important post.

Of recent years the steady expansion of systems of public kindergartens, with their correspondingly heavy demands upon the time of the supervisor, and the broadening of kindergarten training courses to meet the new educational requirements, have made it impossible, except in small city systems, for the two offices to be vested in one person. Although the supervisor is no longer of necessity a training teacher, she is still looked upon as a leader in the formation and conduct of study classes attended by graduate kinder-

[1] Kindergarten Review, January, February, March, 1909.

garten teachers. This is evidently a survival and extension of the teaching phase of early supervision practices.

In theory, the kindergarten is regarded as an integral part of public school systems, but the existence of an actual gap is revealed by the fact that in city school directories and other publications the supervisor of kindergartens is listed with the supervisor of music, the supervisor of drawing, or the supervisors of other special *subjects.* Such listing undoubtedly serves the convenience of the board of education, but it has the effect of obscuring the true function of kindergarten supervision, which is that of dealing with children (and subjects), not merely with a subject.

2. CITIES HAVING KINDERGARTEN SUPERVISORS.

Of the 307 cities which reported to the Bureau of Education four or more kindergartens, with four or more teachers, 135 have special supervisors for kindergartens and 172 have no special kindergarten supervisor.

Following the usage common to the majority of cities, the terms "supervisor," "director," and "assistant" are used throughout this report to designate, respectively, the officer in charge of the system, the head teacher in a kindergarten, and the assistant teacher.

Table 1 lists the cities having kindergarten supervisors, with the number of kindergartens in each city according to figures for 1916, and the name of the supervisor.

TABLE 1.—*Cities and supervisors.*

Cities.	Kindergartens.	Supervisor.
Birmingham, Ala.[1]	23	Agnes M. Wilson.
Mobile, Ala.	9	Elizabeth Johnston.
Bisbee, Ariz.	7	Elizabeth Teegarten.
Phoenix, Ariz.	6	Nellie M. Pollock.
Bakersfield, Cal.	7	Mary Strickland.
Los Angeles, Cal.	137	M. Madeline Neverka.[3]
Oakland, Cal.	60	Ida Vandergaw.
Pasadena, Cal.	15	Maud Alice Davis.[3]
Pomona, Cal.	6	Clara S. Brown.
Redlands, Cal.	5	Daisy D. Virgin.
Sacramento, Cal.	17	Rose M. Sheehan.
Santa Barbara, Cal.	6	Viola M. Gilson.
Denver, Colo.	78	H. Grace Parsons.
New Britain, Conn.	16	Ella A. Fallon.
New Haven, Conn.	50	Jessie Scranton.
New London, Conn.	6	Gertrude L. Stadtmueller.
South Manchester, Conn.	5	Ella Washburn.
Waterbury, Conn.	28	Agnes C. Fitzpatrick.
Washington, D. C.	79	Catherine R. Watkins.
Atlanta, Ga.[4]	27	Willette A. Allen.
Columbus, Ga.	8	Edwina Wood.
Savannah, Ga.[4]	6	Hortense M. Orcutt.
Evanston, Ill. (district 75)	8	Helen G. Dwyer.[5]
Moline, Ill.	7	Nellie Anthony.
Peoria, Ill.	19	Lucy Way.
Riverside, Ill.[4]	4	Lucia Morse.

[1] Kindergartens temporarily discontinued.
[2] Succeeded Grace Fulmer, 1917.
[3] Resigned, 1916.
[4] Kindergartens under association control.
[5] Resigned, 1917.

TABLE 1.—*Cities and supervisors*—Continued.

Cities.	Kindergartens.	Supervisor.
Crawfordsville, Ind	4	Lula B. Schwin.
Evansville, Ind	24	Belle Coffee.
Fort Wayne, Ind	13	Gail Calmerton.
Hammond, Ind	16	Alta Adkins.
Huntington, Ind	4	Prudence Kenner.
Indianapolis, Ind.[1]	61	Martha B. Criley.
Michigan City, Ind	8	Dorothy Armstrong.
Muncie, Ind.[1]	5	Lillian Mitchell.
South Bend, Ind	16	Mrs. Alma O. Ware.
Terre Haute, Ind	32	Stella Webb.
Vincennes, Ind	6	Claire McCarthy.
Creston, Iowa	4	Theresa Lumbard.
Davenport, Iowa	19	Mrs Abigail O. Sheriff.
Des Moines, Iowa	72	Bessie M. Park.
Fort Dodge, Iowa	6	Miriam Hoover.
Coffeyville, Kans	5	Millie Earle.
Salina, Kans	4	Mrs. Hazel N. Moore.
Covington, Ky	14	Elizabeth Pyle.
Lexington, Ky	7	Lucy Walby.
Louisville, Ky	34	Louise Dietz; assistant, Allene Seaton.
New Orleans, La	43	Frances E. Randolph.
Bangor, Me	8	Nellie E. Brown.
Boston, Mass	143	Caroline D. Aborn; assistant, Lillian Poor.
Cambridge, Mass	17	Alice V. McIntyre.
Fall River, Mass	9	Mabel A. Robertson.
Lowell, Mass	14	Alice T. Lee.
Newton, Mass	13	Adelaide L. Thompson.
Pittsfield, Mass	6	Edith C. Rice.
Springfield, Mass	16	Bertha McConkey.
Worcester, Mass	39	Mrs. Mary H. Barker.
Battle Creek, Mich	12	Mrs. Dessalee R. Dudley.
Bessemer, Mich	5	Electa Ransom.
Crystal Falls, Mich	6	Florence M. Finley.
Detroit, Mich	116	Reginia R. Heller.
Grand Rapids, Mich	70	Annie Blanchard.
Houghton, Mich	4	Anna M. Nye.
Ironwood, Mich	14	Gladys M. Shriver.[2]
Jackson, Mich	14	Lula A. Reed.
Kalamazoo, Mich	18	Mae E. Raymond.
Lansing, Mich	23	Waine Troy.[3]
Midland, Mich	4	Anna O'Donnell.
Muskegon, Mich	10	Caroline A. Sibley.
Chisholm, Minn	4	Clara R. Cook.
Duluth, Minn	34	Ethel I. Salisbury.
Eveleth, Minn	10	Martha Voelker.
Gilbert, Minn	5	Mary E. Buckmaster
Hibbing, Minn	14	Theo. Thurber.
Minneapolis, Minn	87	Julia Wade Abbot.
St. Paul, Minn	67	Mary F. McClellan.
Virginia, Minn	7	Eva R. Sorenson.
Laurel, Miss	6	Janetta E. Howard.
Kansas City, Mo	77	Cora English.
St. Louis, Mo	169	Mary McCulloch.
Lincoln, Nebr	19	Alice M. Cusack.
Omaha, Nebr	62	Mrs. Orietta S. Chittenden.
Concord, N. H	5	Helen L. Southgate.
Atlantic City, N. J	15	Ella J. Hamilton.
Bloomfield, N. J	18	Ida E. Robinson.
Jersey City, N. J	12	Ella J. Richardson.
Kearney, N. J	11	May Robbins.
Newark, N. J	102	Margaret McCloskey.
Perth Amboy, N. J	22	Adelina d'Arveau.
Rutherford, N. J	5	Bertha K. Koehler.
Summit, N. J	4	Lorena Frost.
Trenton, N. J	61	Bertha M. Barwis.
Albany, N. Y	24	Ellen Jones.
Amsterdam, N. Y	7	Ethel Robb.
Binghamton, N. Y	28	Grace E. Rogers.
Buffalo, N. Y	121	Ella C. Elder.
Ithaca, N. Y	4	Edith Marshall.
Lawrence, N. Y	6	Anna S. Van Wyck.
Lockport, N. Y	12	Frances E. Putnam.
New York, N. Y.[4]	956	Fanniebelle Curtis; assistants, Luella A. Palmer, Janet Nicholson.

[1] Kindergartens under association control.
[2] Succeeded Florence Padgett, 1916.
[3] Succeeded Hazel Hayden, 1917.
[4] In addition to the public school kindergartens, four other groups in Brooklyn and Manhattan are under the control of associations.

TABLE 1.—*Cities and supervisors*—Continued.

Cities.	Kindergartens.	Supervisor.
Olean, N. Y.	13	Clara Ethel Gage.
Schenectady, N. Y.	19	Frances Leitzell.
Syracuse, N. Y.	61	Maud C. Stewart.
Troy, N. Y.	13	Frances T. Neary.
Utica, N. Y.	21	Sara E. Nolan.
Cincinnati, Ohio.	66	Julia Bothwell.
Cleveland, Ohio.	186	Margaret A. Trace.
Dayton, Ohio	40	Anna H. Littell.
Lorain, Ohio	9	
Mansfield, Ohio[1]	7	Mary Ellen Runyan.
Springfield, Ohio.	10	Anna L. Barrett.
Toledo, Ohio.	76	Lura Whitney.
Guthrie, Okla.[1]	6	Mary Harris.
Oklahoma City, Okla.	46	Susan Thompson.[3]
Tulsa, Okla	4	Avis Smith.
Philadelphia, Pa.	271	Anna W. Williams.
Pittsburgh, Pa.	100	Ella R. Boyce; assistant, Elizabeth Rankin.
Scranton, Pa.	30	Elizabeth R. Rice.
Providence, R. I.	65	Julia Pepper.
Dallas, Tex.[2]	5	Mary King Drew.
Fort Worth, Tex.	17	Sarah W. Crawford.
Houston, Tex.	4	Helena Wilson.
Ogden, Utah	8	Verna Tavey.
Salt Lake City, Utah	13	L. M. Qualtrough.
Norfolk, Va.[3]	5	Lilian M. Wadsworth.
Richmond, Va.	19	Mary E. Pennell.
Antigo, Wis.	6	Amelia Sabin.
Ashland, Wis.	6	Lydia Doolittle.
Beloit, Wis.	13	Gertrude Morgan.[4]
Fond du Lac, Wis.	16	Anna Clark.
Kenosha, Wis.	16	Jane E. Vernon.[5]
La Crosse, Wis.	10	Irene Harbeck.[6]
Oshkosh	22	Clara James.
Racine, Wis.	24	Myrtle Farnham.
Sheboygan, Wis.	16	Theodora Arentson.
Waukesha, Wis.	8	Meda Newbecker.

[1] Kindergartens temporarily discontinued.
[2] Succeeded Edna Mae Lindsay.
[3] Kindergartens under association control.
[4] Resigned, 1917.
[5] Succeeded Edna E. Hood, 1917.
[6] Succeeded Gwendolyn Fenton, 1917.

3. SUPERVISION IN CITIES GROUPED ACCORDING TO POPULATION.

Of the cities of 250,000 and over, Chicago, Baltimore, Milwaukee, San Francisco, Seattle, and Rochester are without special supervisors of kindergartens. Greater New York employs one chief and two assistant supervisors for the public-school kindergartens. In addition to these, one supervisor is employed by each of the four associations—Brooklyn Free Kindergarten Society, New York Kindergarten Association, Children's Aid Society, and St. Bartholomew's Parish. In San Francisco several groups of free kindergartens are maintained by associations.

Boston and Pittsburgh employ one chief and one assistant supervisor for the public kindergartens. In Detroit and Los Angeles the kindergartens and first grades are under one supervisor; in Denver the kindergartens and first two grades are in charge of one person; and in Jersey city the kindergartens and first four grades are supervised by the same person.

Table 2 indicates the nature and scope of supervision in cities of over 250,000 population.

TABLE 2.—*Supervision in cities of 250,000 and over.*

Cities.	Kindergartens.	Type of supervision.
Los Angeles, Cal.	137	One supervisor of kindergartens and first grades.
San Francisco, Cal.	11	No special supervisor.
Denver, Colo.	78	One supervisor of kindergartens and first two grades.
Washington, D. C.	79	One supervisor of kindergartens.
Chicago, Ill.	376	No special supervisor.
New Orleans, La.	43	One supervisor of kindergartens.
Baltimore, Md.	23	No special supervisor.
Boston, Mass.	143	Two supervisors of kindergartens.
Detroit, Mich.	116	One supervisor of kindergartens and first grades.
Minneapolis, Minn.	87	One supervisor of kindergartens.
Kansas City, Mo.	77	Do.
St. Louis, Mo.	169	Do.
Jersey City, N. J.	12	One supervisor of kindergartens and first four grades.
Newark, N. J.	102	One supervisor of kindergartens and primary grades.
Buffalo, N. Y.	121	One supervisor of kindergartens.
New York, N. Y.	936	Three supervisors of kindergartens.
Rochester, N. Y.	74	No special supervisor.
Cincinnati, Ohio.	66	One supervisor of kindergartens.
Cleveland, Ohio.	186	Do.
Philadelphia, Pa.	271	Do.
Pittsburgh, Pa.	100	Two supervisors of kindergartens.
Providence, R. I.	65	One supervisor of kindergartens.
Seattle, Wash.[1]	27	No special supervisor.
Milwaukee, Wis.	134	Do.

[1] A supervisor was in charge of kindergartens until 1914, when she withdrew in order to establish a kindergarten training school in Seattle. Her influence and advice are still active factors in the city kindergartens.

Of the cities with a population between 100,000 and 250,000, Bridgeport, Hartford, New Bedford, Camden, Paterson, and Columbus do not employ a special supervisor for kindergartens. In six cities, the kindergartens and primary grades are under one supervisor; and in one of these, Louisville, an assistant devotes her entire time to the supervision of the kindergartens. In Birmingham, Albany, Syracuse, and Fort Worth, the supervisor fulfills also the duties of training teacher in the city normal school.

Atlanta and Dallas have no public school kindergartens; but in each of these cities a kindergarten association is sponsor for several free kindergartens, and maintains a kindergarten training school of which the supervisor has charge. The kindergartens in Indianapolis are under the control of an association.

The situation with regard to the group of cities between 100,000 and 250,000 is set forth in Table 3.

TABLE 3.—*Supervision in cities of 100,000 to 250,000.*

Cities.	Kindergartens.	Type of supervision.
Birmingham, Ala.[1]	23	The supervisor of kindergartens is also head of kindergarten training department in the city normal school.
Oakland, Cal.	60	One supervisor of kindergartens and primary grades.
Bridgeport, Conn.	4	No special supervisor.
Hartford, Conn.	17	Do.
New Haven, Conn.	50	One supervisor of kindergartens.
Atlanta, Ga.	27	Two supervisors of association kindergartens are also teachers in the training school.
Indianapolis, Ind.	61	One supervisor of association kindergartens.
Des Moines, Iowa.	72	One supervisor of kindergartens.
Louisville, Ky.	34	One supervisor of kindergartens and primary grades, with an assistant giving entire time to the kindergartens.
Cambridge, Mass.	17	One supervisor of kindergartens and primary grades.
Fall River, Mass.	9	One supervisor of kindergartens.
Lowell, Mass.	14	One supervisor of kindergartens and first four grades.
New Bedford, Mass.	22	No special supervisor.
Springfield, Mass.	16	One supervisor of kindergartens.
Worcester, Mass.	39	Do.
Grand Rapids, Mich.	70	One supervisor of kindergartens and first grades.
St. Paul, Minn.	67	One supervisor of kindergartens.
Omaha, Nebr.[2]	62	Do.
Camden, N. J.	26	No special supervisor.
Paterson, N. J.	24	Do.
Trenton, N. J.	61	One supervisor of kindergartens.
Albany, N. Y.	24	The supervisor of kindergartens is also head of kindergarten training department of city normal school.
Syracuse, N. Y.	61	Do.
Columbus, Ohio.	4	No supervisor of kindergartens.
Dayton, Ohio.	40	One supervisor of kindergartens.
Toledo, Ohio.	76	Do.
Scranton, Pa.	30	Do.
Dallas, Tex.	5	The supervisor of kindergartens is also head of kindergarten training school.
Fort Worth, Tex.	17	Do.
Houston, Tex.	4	One supervisor of kindergartens.
Salt Lake City, Utah.	13	One supervisor of kindergartens and primary grades.
Richmond, Va.	19	One supervisor of kindergartens.

[1] Kindergartens temporarily discontinued.
[2] Omaha and South Omaha schools have been consolidated.

Of the 39 cities with 50,000 to 100,000 population, 19 have special supervisors. In nine cities the kindergartens and primary grades are under one supervisor. In Peoria and South Bend the supervisor is also in charge of a kindergarten training class.

Savannah has no public school kindergartens, but several free classes are supported by various organizations and supervised by the principal of the association training school.

In Norfolk the expense of maintaining free kindergartens is shared by the board of education and an association, and the supervision of the classes is carried on by the principal of the association training school.

Table 4 sets forth the nature and scope of kindergarten supervision in the 39 cities.

TABLE 4.—*Supervision in cities of 50,000 to 100,000.*

Cities.	Kindergartens.	Type of supervision.
Mobile, Ala.	9	One supervisor of kindergartens and first grades.
Berkeley, Cal.	13	No special supervisor.
Sacramento, Cal.	17	One supervisor of kindergartens.
San Diego, Cal.	9	No special supervisor.
Pueblo, Colo.	11	Do.
New Britain, Conn.	16	One supervisor of kindergartens and first grades.
Waterbury, Conn.	28	Do.
Savannah, Ga.	6	The supervisor of association kindergartens is also head of kindergarten training school.
Peoria, Ill.	19	The supervisor of kindergartens is also head of kindergarten training department of city normal school.
Evansville, Ind.	24	One supervisor of kindergartens and primary grades.
Fort Wayne, Ind.	13	Do.
South Bend, Ind.	16	The supervisor of kindergartens is also head of kindergarten training school.
Terre Haute, Ind.	32	One supervisor of kindergartens.
Kansas City, Kans.	7	No special supervisor.
Covington, Ky.	14	One supervisor of kindergartens.
Portland, Me.	11	No special supervisor.
Holyoke, Mass.	10	Do.
Somerville, Mass.	4	Do.
Flint, Mich.	40	Do.
Duluth, Minn.	34	One supervisor of kindergartens and primary grades.
Manchester, N. H.	5	No special supervisor.
Atlantic City, N. J.	15	One supervisor of kindergartens and primary grades.
Bayonne, N. J.	15	No special supervisor.
Hoboken, N. J.	9	Do.
Passaic, N. J.	18	Do.
Binghamton, N. Y.	28	One supervisor of kindergartens and primary grades.
Schenectady, N. Y.	19	Do.
Troy, N. Y.	13	One supervisor of kindergartens.
Utica, N. Y.	21	One supervisor of kindergartens and primary grades.
Yonkers, N. Y.	36	No special supervisor.
Akron, Ohio.	40	Do.
Springfield, Ohio.	10	One supervisor of kindergartens.
Oklahoma City, Okla.	46	Do.
Erie, Pa.	10	No special supervisor.
Johnstown, Pa.	4	Do.
Wilkes-Barre, Pa.	7	Do.
Pawtucket, R. I.	13	Do.
El Paso, Tex.	4	Do.
Norfolk, Va.	5	The supervisor of association kindergartens is also head of kindergarten training school.

Of the cities of 25,000 to 50,000 population, 40 have no special kindergarten supervisors. Five cities employ one supervisor for kindergartens and primary grades.

Evanston is organized into two school districts; in only one of these is employed a supervisor for kindergartens.

In Columbus, Ga., an association maintains a kindergarten training school the principal of which is also supervisor of the public-school kindergartens.

In Butte, Mont., the kindergartens have shared with the entire school system the benefit of an assistant superintendent, who is an experienced teacher and supervisor.

The nature and scope of kindergarten supervision in cities of 25,000 to 50,000 are indicated in Table 5.

TABLE 5.—*Supervision in cities of 25,000 to 50,000.*

Cities.	Kindergartens.	Type of supervision.
Alameda, Cal	5	No special supervisor.
Long Beach, Cal	14	Do.
Pasadena, Cal	15	One supervisor of kindergartens and primary grades.
Colorado Springs, Colo	8	No special supervisor.
Meriden, Conn	15	Do.
Stamford, Conn	18	Do.
Augusta, Ga	6	Do.
Columbus, Ga	8	The supervisor of kindergartens is also head of association kindergarten training school.
Aurora, Ill	4	No special supervisor.
Evanston, Ill	14	One supervisor of kindergartens in district 75.
Moline, Ill	17	One supervisor of kindergartens.
Oak Park, Ill	4	No special supervisor.
East Chicago, Ind	8	Do.
Hammond, Ind	16	One supervisor of kindergartens and primary grades.
Muncie, Ind	5	One supervisor of association kindergartens.
Burlington, Iowa	8	No special supervisor.
Cedar Rapids, Iowa	15	Do.
Council Bluffs, Iowa	25	Do.
Davenport, Iowa	19	One supervisor of kindergartens and primary grades.
Dubuque, Iowa	7	No special supervisor.
Waterloo, Iowa	16	Do.
Topeka, Kans	4	Do.
Lexington, Ky	7	One supervisor of kindergartens.
Bangor, Me	8	Do.
Brookline, Mass	10	No special supervisor.
Haverhill, Mass	4	Do.
Newton, Mass	13	One supervisor of kindergartens.
Pittsfield, Mass	6	Do.
Salem, Mass	6	No special supervisor.
Waltham, Mass	7	Do.
Battle Creek, Mich	12	One supervisor of kindergartens and primary grades.
Bay City, Mich	24	No special supervisor.
Jackson, Mich	14	One supervisor of kindergartens.
Kalamazoo, Mich	18	Do.
Lansing, Mich	23	Do.
Muskegon, Mich	10	Do.
Butte, Mont	6	No special supervisor.
Lincoln, Nebr	19	One supervisor of kindergartens and primary grades.
Nashua, N. H	8	No special supervisor.
East Orange, N. J	9	Do.
Montclair, N. J	9	Do.
New Brunswick, N. J	12	Do.
Orange, N. J	11	Do.
Perth Amboy, N. J	22	One supervisor of kindergartens.
West Hoboken, N. J	7	No special supervisor.
Amsterdam, N. Y	7	One supervisor of kindergartens.
Auburn, N. Y	10	No special supervisor.
Cohoes, N. Y	4	Do.
Jamestown, N. Y	21	Do.
Mount Vernon, N. Y	14	Do.
New Rochelle, N. Y	14	Do.
Niagara Falls, N. Y	10	Do.
Poughkeepsie, N. Y	7	Do.
Watertown, N. Y	20	Do.
Lorain, Ohio	9	One supervisor of kindergartens.
Tulsa, Okla	4	Do.
Cranston, R. I	8	No special supervisor.
Newport, R. I	10	Do.
Ogden, Utah	8	One supervisor of kindergartens.
Green Bay, Wis	4	No special supervisor.
Kenosha, Wis	16	One supervisor of kindergartens.
La Crosse, Wis	10	Do.
Madison, Wis	15	No special supervisor.
Oshkosh, Wis	22	One supervisor of kindergartens.
Racine, Wis	24	Do.
Sheboygan, Wis	16	Do.
Superior, Wis	19	No special supervisor.

Of the cities of 15,000 to 25,000 population, 32 are without a special kindergarten supervisor. In 8 cities, the kindergartens and primary grades are under one supervisor; in one of these, Bloomfield, N. J., all the elementary grades, including the kindergarten, are under the supervision of one person.

In Gary, Ind., the assistant superintendent exercises certain supervisory functions in connection with the kindergartens.

The situation in these cities is set forth in detail in Table 6.

TABLE 6.—*Supervision in cities of 15,000 to 25,000.*

Cities.	Kindergartens.	Type of supervision.
Phoenix, Ariz.	6	One supervisor of kindergartens and primary grades.
Pine Bluff, Ark.	10	No special supervisor.
Bakersfield, Cal.	7	One supervisor of kindergartens.
Riverside, Cal.	6	No special supervisor.
San Bernardino, Cal.	5	Do.
Greenwich, Conn.	10	Do.
New London, Conn.	6	One supervisor of kindergartens.
Norwich, Conn.	11	No special supervisor.
Waukegan, Ill.	4	Do.
Gary, Ind.	14	Do.
Michigan City, Ind.	8	One supervisor of kindergartens.
Mishawaka, Ind.	5	No special supervisor.
Richmond, Ind.	9	Do.
Vincennes, Ind.	6	One supervisor of kindergartens.
Fort Dodge, Iowa.	6	Do.
Coffeyville, Kans.	5	Do.
North Adams, Mass.	6	No special supervisor.
Westfield, Mass.	7	Do.
Escanaba, Mich.	8	Do.
Pontiac, Mich.	5	Do.
Hibbing, Minn.	14	One supervisor of kindergartens.
Virginia, Minn.	7	One supervisor of kindergartens and primary grades.
Winona, Minn.	7	No special supervisor.
Concord, N. H.	5	One supervisor of kindergartens.
Bloomfield, N. J.	18	One supervisor of kindergartens and all elementary grades.
Hackensack, N. J.	11	No special supervisor.
Kearney, N. J.	11	One supervisor of kindergartens and primary grades.
Long Branch, N. J.	5	No special supervisor.
Plainfield, N. J.	11	Do.
West New York, N. J.	5	Do.
Dunkirk, N. Y.	12	Do.
Gloversville, N. Y.	9	Do.
Ithaca, N. Y.	4	One supervisor of kindergartens and primary grades.
Lackawanna, N. Y.	7	No special supervisor.
Lockport, N. Y.	12	One supervisor of kindergartens and primary grades.
Olean, N. Y.	13	Do.
Port Chester, N. Y.	9	No special supervisor.
Rome, N. Y.	14	Do.
White Plains, N. Y.	8	Do.
Asheville, N. C.	6	Do.
Elyria, Ohio.	8	Do.
Lakewood, Ohio.	14	Do.
Mansfield, Ohio [1].	7	One supervisor of kindergartens.
Norwood, Ohio.	4	No special supervisor.
Sioux Falls, S. Dak.	7	Do.
Burlington, Vt.	6	Do.
Appleton, Wis.	14	Do.
Beloit, Wis.	13	One supervisor of kindergartens.
Eau Claire, Wis.	10	No special supervisor.
Fond du Lac, Wis.	16	One supervisor of kindergartens and primary grades.
Wausau, Wis.	9	No special supervisor.

[1] Kindergartens temporarily discontinued.

Table 7 indicates the nature and scope of supervision in the 94 cities under 15,000 population.

TABLE 7.—*Supervision in cities with under 15,000 population.*

Cities.	Kindergartens.	Type of supervision.
Bisbee, Ariz.	7	One supervisor of kindergartens.
Pomona, Cal.	6	Do.
Redlands, Cal.	5	Do.
Santa Ana, Cal.	6	No special supervisor.
Santa Barbara, Cal.	6	One supervisor of kindergartens and primary grades.
Fort Collins, Colo.	4	No special supervisor.
Bristol, Conn.	10	Do.
Naugatuck, Conn.	6	Do.
South Manchester, Conn.	5	One supervisor of kindergartens.
Wallingford, Conn.	4	No special supervisor.
Miami, Fla.	5	Do.
Riverside, Ill.	4	One supervisor of association kindergartens.
Crawfordsville, Ind.	4	One supervisor of kindergartens.
Huntington, Ind.	4	Do.

TABLE 7.—*Supervision in cities with under 15,000 population*—Continued.

Cities.	Kindergartens.	Type of supervision.
Laporte, Ind	4	No special supervisor.
Belle Plaine, Iowa	4	Do.
Creston, Iowa	4	One supervisor of kindergartens.
Fairfield, Iowa	4	No special supervisor.
Marshalltown, Iowa	16	Do.
Mason City, Iowa	12	Do.
Oskaloosa, Iowa	9	Do.
Washington, Iowa	4	Do.
Salina, Kans	4	One supervisor of kindergartens.
Augusta, Me	5	No special supervisor.
Braintree, Mass	5	Do.
Benton Harbor, Mich	12	Do.
Bessemer, Mich	5	One special supervisor of kindergartens.
Cadillac, Mich	5	No special supervisor.
Crystal Falls, Mich	6	One supervisor of kindergartens.
Dowagiac, Mich	8	No special supervisor.
Holland, Mich	10	Do.
Houghton, Mich	4	One supervisor of kindergartens and primary grades.
Ironwood, Mich	14	One supervisor of kindergartens.
Ishpeming, Mich	8	No special supervisor.
Manistee, Mich	6	Do.
Manistique, Mich	4	Do.
Marquette, Mich	4	Do.
Menominee, Mich	8	Do.
Midland, Mich	4	One supervisor of kindergartens.
Osceola, Mich	5	No special supervisor.
Owosso, Mich	8	Do.
Petosky, Mich	6	Do.
Sault Ste. Marie, Mich	7	Do.
Three Rivers, Mich	4	Do.
Traverse City, Mich	8	Do.
Aurora, Minn	6	Do.
Chisholm, Minn	4	One supervisor of kindergartens.
Coleraine, Minn	4	No special supervisor.
Ely, Minn	4	Do.
Eveleth, Minn	10	One supervisor of kindergartens and primary grades.
Gilbert, Minn	5	One supervisor of kindergartens.
Mankato, Minn	4	No special supervisor.
Laurel, Miss	6	One supervisor of kindergartens and primary grades.
Great Falls, Mont	12	No special supervisor.
Helena, Mont	6	Do.
Fremont, Nebr	9	Do.
Hastings, Nebr	5	Do.
Asbury Park, N. J	4	Do.
Clifton, N. J	14	Do.
Englewood, N. J	4	Do.
Garfield, N. J	8	Do.
Nutley, N. J	8	Do.
Rutherford, N. J	5	One supervisor of kindergartens.
South Orange, N. J	4	No special supervisor.
Summit, N. J	4	One supervisor of kindergartens.
Weehawken, N. J	5	No special supervisor.
Westfield, N. J	8	Do.
West Orange, N. J	7	Do.
Geneva, N. Y	4	Do.
Hornell, N. Y	10	Do.
Johnstown, N. Y	4	Do.
Lansingburg, N. Y	4	Do.
Lawrence, N. Y	6	One supervisor of kindergartens.
Little Falls, N. Y	5	No special supervisor.
North Tonawanda, N. Y	10	Do.
Saratoga Springs, N. Y	5	Do.
Tonawanda, N. Y	6	Do.
Fremont, Ohio	4	Do.
Washington C. H., Ohio	4	Do.
Guthrie, Okla.[1]	6	One supervisor of kindergartens.
Titusville, Pa	4	No special supervisor.
Warren, Pa	9	Do.
Antigo, Wis	6	One supervisor of kindergartens and primary grades.
Ashland, Wis	6	Do.
Beaver Dam, Wis	8	No special supervisor.
Janesville, Wis	5	Do.
Manitowoc, Wis	6	Do.
Marinette, Wis	10	Do.
Monroe, Wis	6	Do.
Neenah, Wis	6	Do.
Oconto, Wis	4	Do.
Stevens Point, Wis	7	Do.
Waukesha, Wis	8	One supervisor of kindergartens.
West Allis, Wis	6	No special supervisor.

[1] Kindergartens temporarily discontinued.

4. SUPERVISION IN CITIES GROUPED ACCORDING TO NUMBER OF KINDERGARTENS.[1]

Of 12 cities having 100 or more kindergartens, 10 have supervisors of kindergartens and 2 have no special supervisors:

New York, N. Y. (936)
Chicago, Ill. (376)[2]
Philadelphia, Pa. (271)
Cleveland, Ohio (936)
St. Louis, Mo. (169)
Boston, Mass. (143)
Los Angeles, Cal. (137)
Milwaukee, Wis. (134)[2]
Buffalo, N. Y. (121)
Detroit, Mich. (116)
Newark, N. J. (102)
Pittsburgh, Pa. (100)

Of 8 cities having between 70 and 100 kindergartens, 7 have supervisors of kindergartens and 1 has no special supervisor:

Minneapolis, Minn. (87)
Washington, D. C. (79)
Denver, Colo. (78)
Kansas City, Mo. (77)
Toledo, Ohio (76)
Rochester, N. Y. (74)[2]
Des Moines, Iowa (72)
Grand Rapids, Mich. (70)

Of 9 cities having between 50 and 70 kindergartens, all have supervisors of kindergartens:

St. Paul, Minn. (67)
Cincinnati, Ohio (66)
Providence, R. I. (65)
Omaha, Nebr. (62)
Indianapolis, Ind. (61)
Trenton, N. J. (61)
Syracuse, N. Y. (61)
Oakland, Cal. (60)
New Haven, Conn. (50)

Of 11 cities having between 30 and 50 kindergartens, 8 have supervisors of kindergartens and 3 have no special supervisor:

Oklahoma City, Okla. (46)
New Orleans, La. (43)
Akron, Ohio (40)[2]
Dayton, Ohio (40)
Flint, Mich. (40)[2]
Worcester, Mass. (39)
Yonkers, N. Y. (36)[2]
Louisville, Ky. (34)
Duluth, Minn. (34)
Terre Haute, Ind. (32)
Scranton, Pa. (30)

Of 20 cities having between 20 and 30 kindergartens, 11 have supervisors of kindergartens and 9 have no special supervisor:

Waterbury, Conn. (28)
Binghamton, N. Y. (28)
Atlanta, Ga. (27)
Seattle, Wash. (27)[2]
Camden, N. J. (26)[2]
Council Bluffs, Iowa (25)[2]
Evansville, Ind. (24)
Bay City, Mich. (24)[2]
Albany, N. Y. (24)
Paterson, N. J. (24)[2]
Racine, Wis. (24)
Birmingham, Ala. (23)
Baltimore, Md. (23)[2]
Lansing, Mich. (23)
New Bedford, Mass. (22)[2]
Perth Amboy, N. J. (22)
Oshkosh, Wis. (22)
Jamestown, N. Y. (21)[2]
Utica, N. Y. (21)
Watertown, N. Y. (20)[2]

[1] Figures in parentheses following name of city indicate number of kindergartens.
[2] No special supervisor.

Of 30 cities having between 15 and 20 kindergartens, 20 have supervisors of kindergartens and 10 have no special supervisor:

Davenport, Iowa (19)
Peoria, Ill. (19)
Lincoln, Nebr. (19)
Schenectady, N. Y. (19)
Richmond, Va. (19)
Superior, Wis. (19)[1]
Stamford, Conn. (18)[1]
Kalamazoo, Mich. (18)
Bloomfield, N. J. (18)
Passaic, N. J. (18)[1]
Sacramento, Cal. (17)
Hartford, Conn. (17)[1]
Moline, Ill. (17)
Cambridge, Mass. (17)
Fort Worth, Tex. (17)
New Britain, Conn. (16)
Hammond, Ind. (16)
South Bend, Ind. (16)
Marshalltown, Iowa (16)[1]
Waterloo, Iowa (16)[1]
Springfield, Mass. (16)
Fond du Lac, Wis. (16)
Kenosha, Wis. (16)
Sheboygan, Wis. (16)
Pasadena, Cal. (15)
Meriden, Conn. (15)[1]
Cedar Rapids, Iowa (15)[1]
Atlantic City, N. J. (15)
Bayonne, N. J. (15)[1]
Madison, Wis. (15)[1]

Of 30 cities having between 12 and 15 kindergartens, 15 have supervisors of kindergartens and 15 have no special supervisor:

Long Beach, Cal. (14)[1]
Evanston, Ill. (14)
Gary, Ind. (14)[1]
Covington, Ky. (14)
Lowell, Mass. (14)
Ironwood, Mich. (14)
Jackson, Mich. (14)
Hibbing, Miss. (14)
Clifton, N. J. (14)[1]
Mount Vernon, N. Y. (14)[1]
New Rochelle, N. Y. (14)[1]
Rome, N. Y. (14)[1]
Lakewood, Ohio (14)[1]
Appleton, Wis. (14)[1]
Berkeley, Cal. (13)[1]
Fort Wayne, Ind. (13)
Newton, Mass. (13)
Olean, N. Y. (13)
Troy, N. Y. (13)
Pawtucket, R. I. (13)[1]
Salt Lake City, Utah (13)
Beloit, Wis. (13)
Mason City, Iowa (12)[1]
Battle Creek, Mich. (12)
Benton Harbor, Mich. (12)[1]
Great Falls, Mont. (12)[1]
Jersey City, N. J. (12)
New Brunswick, N. J. (12)[1]
Dunkirk, N. Y. (12)[1]
Lockport, N. Y. (12)

Of 40 cities having between 9 and 12 kindergartens, 8 have supervisors of kindergartens and 32 have no special supervisor:

San Francisco, Cal. (11)[1]
Pueblo, Colo. (11)[1]
Norwich, Conn. (11)[1]
Portland, Me. (11)[1]
Hackensack, N. J. (11)[1]
Kearney, N. J. (11)
Orange, N. J. (11)[1]
Plainfield, N. J. (11)[1]
Pine Bluff, Ark. (10)[1]
Bristol, Conn. (10)[1]
Greenwich, Conn. (10)[1]
Brookline, Mass. (10)[1]
Holyoke, Mass. (10)[1]
Holland, Mich. (10)[1]
Muskegon, Mich. (10)
Eveleth, Minn. (10)
Auburn, N. Y. (10)[1]
Hornell, N. Y. (10)[1]
Niagara Falls, N. Y. (10)[1]
North Tonawanda, N. Y. (10)[1]
Springfield, Ohio (10)
Erie, Pa. (10)[1]
Newport, R. I. (10)[1]
Eau Claire, Wis. (10)[1]
La Crosse, Wis. (10)
Marinette, Wis. (10)[1]

[1] No special supervisor.

Mobile, Ala. (9)
San Diego, Cal. (9)[1]
Richmond, Ind. (9)[1]
Oskaloosa, Iowa (9)[1]
Fall River, Mass. (9)
Fremont, Nebr. (9)[1]
East Orange, N. J. (9)[1]
Hoboken, N. J. (9)[1]
Montclair, N. J. (9)[1]
Gloversville, N. Y. (9)[1]
Port Chester, N. Y. (9)[1]
Lorain, Ohio (9)
Warren, Pa. (9)[1]
Wausau, Wis. (9)[1]

Of 41 cities having 7 or 8 kindergartens, 11 have supervisors of kindergartens and 30 have no special supervisor:

Colorado Springs, Colo. (8)[1]
Columbus, Ga. (8)
East Chicago, Ind. (8)[1]
Burlington, Iowa (8)[1]
Bangor, Me. (8)
Dowagiac, Mich. (8)[1]
Escanaba, Mich. (8)[1]
Ishpeming, Mich. (8)[1]
Menominee, Mich. (8)[1]
Michigan City, Mich. (8)
Owosso, Mich. (8)[1]
Traverse City, Mich. (8)[1]
Nashua, N. H. (8)[1]
Garfield, N. J. (8)[1]
Nutley, N. J. (8)[1]
Westfield, N. J. (8)[1]
White Plains, N. Y. (8)[1]
Elyria, Ohio (8)[1]
Cranston, R. I. (8)[1]
Ogden, Utah (8)
Beaver Dam, Wis. (8)[1]
Waukesha, Wis. (8)
Bisbee, Ariz. (7)
Bakersfield, Cal. (7)
Kansas City, Kans. (7)[1]
Lexington, Ky. (7)
Dubuque, Iowa (7)[1]
Waltham, Mass. (7)[1]
Westfield, Mass. (7)[1]
Sault Ste. Marie, Mich. (7)[1]
Virginia, Minn. (7)
Winona, Minn. (7)[1]
West Hoboken, N. J. (7)[1]
West Orange, N. J. (7)[1]
Amsterdam, N. Y. (7)
Lackawanna, N. Y. (7)[1]
Poughkeepsie, N. Y. (7)[1]
Mansfield, Ohio (7)
Wilkes-Barre, Pa. (7)[1]
Sioux Falls, S. Dak. (7)[1]
Stevens Point, Wis. (7)[1]

Of 59 cities having 5 or 6 kindergartens, 24 have supervisors of kindergartens and 34 have no special supervisor.

Phoenix, Ariz. (6)
Riverside, Cal. (6)[1]
Pomona, Cal. (6)
Santa Ana, Cal. (6)[1]
Santa Barbara, Cal. (6)
Naugatuck, Conn. (6)[1]
New London, Conn. (6)
Augusta, Ga. (6)[1]
Savannah, Ga. (6)
Vincennes, Ind. (6)
Fort Dodge, Iowa (6)
North Adams, Mass. (6)[1]
Pittsfield, Mass. (6)
Salem, Mass. (6)[1]
Crystal Falls, Mich. (6)
Manistee, Mich. (6)[1]
Petoskey, Mich. (6)[1]
Aurora, Minn. (6)[1]
Laurel, Miss. (6)
Butte, Mont. (6)[1]
Helena, Mont. (6)[1]
Lawrence, N. Y. (6)
Tonawanda, N. Y. (6)[1]
Asheville, N. C. (6)[1]
Guthrie, Okla. (6)
Burlington, Vt. (6)[1]
Antigo, Wis. (6)
Ashland, Wis. (6)
Manitowoc, Wis. (6)[1]
Monroe, Wis. (6)[1]
Neenah, Wis. (6)[1]
West Allis, Wis. (6)[1]
Alameda, Cal. (5)[1]
Redlands, Cal. (5)
San Bernardino, Cal. (5)[1]
Miami, Fla. (5)[1]

[1] No special supervisor.

Mishawaka, Ind. (5)[1]
Muncie, Ind. (5)
South Manchester, Conn. (5)
Coffeyville, Kans. (5)
Augusta, Me. (5)[1]
Braintree, Mass. (5)[1]
Bessemer, Mich. (5)
Cadillac, Mich. (5)[1]
Osceola, Mich. (5)[1]
Pontiac, Mich. (5)[1]
Gilbert, Minn. (5)
Hastings, Nebr. (5)[1]
Concord, N. H. (5)
Manchester, N. H. (5)[1]
Long Branch, N. J. (5)[1]
Rutherford, N. J. (5)
Weehawken, N. J. (5)[1]
West New York, N. J. (5)[1]
Little Falls, N. Y. (5)[1]
Saratoga Springs, N. Y.. (5)[1]
Dallas, Tex. (5)
Norfolk, Va. (5)
Janesville, Wis. (5)[1]

Of 47 cities having 4 kindergartens, 12 have supervisors of kindergartens and 35 have no special supervisor.

Fort Collins, Colo.[1]
Bridgeport, Conn.[1]
Wallingford, Conn.[1]
Aurora, Ill.[1]
Oak Park, Ill.[1]
Riverside, Ill.
Waukegan, Ill.[1]
Crawfordsville, Ind.
Huntington, Ind.
La Porte, Ind.[1]
Belle Plaine, Iowa.[1]
Creston, Iowa.
Fairfield, Iowa.[1]
Washington, Iowa.[1]
Salina, Kans.
Topeka, Kans.[1]
Haverhill, Mass.[1]
Somerville, Mass.[1]
Houghton, Mich.
Manistique, Mich.[1]
Marquette, Mich.[1]
Midland, Mich.
Three Rivers, Mich.[1]
Chisholm, Minn.
Coleraine, Minn.[1]
Ely, Minn.[1]
Mankato, Minn.[1]
Asbury Park, N. J.[1]
Englewood, N. J.[1]
South Orange, N. J.[1]
Summit, N. J.
Cohoes, N. Y.[1]
Geneva, N. Y.[1]
Ithaca, N. Y.
Johnstown, N. Y.[1]
Lansingburgh, N. Y.[1]
Columbus, Ohio.[1]
Fremont, Ohio.[1]
Norwood, Ohio.[1]
Washington C. H., Ohio.[1]
Tulsa, Okla.
Johnstown, Pa.[1]
Titusville, Pa.[1]
El Paso, Tex.[1]
Houston, Tex.
Green Bay, Wis.[1]
Oconto, Wis.[1]

5. PREPARATION AND EXPERIENCE OF KINDERGARTEN SUPERVISORS.

General educational preparation.—As a foundation for their professional preparation, the larger number of supervisors have been graduated from a four-year high-school course. Several have taken some high-school work followed by normal school training. Others have added one, two, or three years of college work to their high-school foundation. A number of others have taken special courses in art, music, literature, psychology, or philosophy; while two super-

[1] No special supervisor.

visors are graduates in music. One supervisor has had a course in a business college.

Of those who have completed a college course, four hold the degree of bachelor; one has received a B. A. degree from the University of Michigan, one an A. B. degree from the University of Nebraska, one a B. S. degree from Columbia University, and the fourth a B. A. degree from Beloit College.

Specific kindergarten training of supervisors of kindergartens.—All supervisors who are in charge of kindergartens alone have had full kindergarten training. Preceding their assignment to supervisory positions, they have had also from 2 to 22 years of actual teaching experience with children in kindergartens. In addition to experience with children, a considerable number of supervisors have been teachers in kindergarten training schools, and several have taught in primary grades.

One supervisor has had experience as grade critic in a normal school.

Extension of professional preparation.—A noteworthy fact connected with the preparation and experience of supervisors is that with very few exceptions frequent attendance upon summer school sessions has been employed as a means of extending and intensifying the training originally received. The summer schools of the University of Chicago and of Columbia University are many times mentioned; sessions at Chautauqua, N. Y., have been attended by several supervisors. Other supervisors have evidently secured leave of absence from their duties for definite periods of time in order to avail themselves of the excellent courses in kindergarten supervision offered during the winter terms of the universities.

Specific kindergarten training of kindergarten-primary supervisors.—A full course in kindergarten education has been taken by the larger number of supervisors who are in charge of both kindergartens and primary grades. A few supervisors report having had *some* courses in kindergarten work; the remaining few report that they have had no specific kindergarten training whatsoever.

It appears, therefore, that placing the kindergartens and primary grades under the supervision of a person who has not had specific kindergarten training is as much for the sake of economic convenience as for the sake of achieving organic relations between the kindergarten and the early grades.

In this connection, Miss Ida Vandergaw, of Oakland, Cal., writes:

> In Oakland the supervisor of primary work is officially the *adviser* of the kindergarten teachers. Kindergarten classes have been organized at intervals since 1895. * * * In 1913, the kindergartners asked the board of education that the supervisor of primary work be officially made their adviser.

Mrs. Abigail Sheriff, of Davenport, Iowa, makes this note:

My visits to the kindergartens are hardly those of a supervisor.

The report from the supervisor in Bessemer, Mich., is:

I am a grade supervisor and have but little time to give to kindergarten problems. We have children in kindergarten only one-half a year, substituting subprimary for the second half year.

The kindergartens of a public-school system are fewer in number than the primary grades; the demands, therefore, of the grades exceed those of the kindergartens, and the supervisor is obliged to give her time where it is most needed. For this reason a special supervisor for kindergartens alone is about to be appointed in Evansville, Ind. It is felt that more intensive supervisory work should be carried on among the kindergarten teachers.

Miss Alice T. Lee, of Lowell, Mass., reports that previous to her appointment as supervisor of primary grades and kindergartens she had been a primary principal for many years and had watched the development of the kindergartens in Lowell, and it has since been her aim to make the kindergarten a unit in the school system.

In Battle Creek, Mich., the kindergartens have come in gradually during the past few years, and there are still not enough of them to warrant the expense of a special supervisor for kindergartens and first grades; the primary supervisor, therefore, is at present in charge of them.

The supervisor of grade work in Antigo, Wis., Miss Amelia Sabin, has very little time for the supervising of "straight kindergarten" work. The kindergarten teachers teach a class of subprimary chilchildren in the morning and a class of kindergarten children in the afternoon. The supervisor is obliged to spend most of her time with new or beginning teachers in all grades. Sometimes she is called upon to substitute for teachers in the grades and also in the high school.

6. RESPONSIBILITY OF SUPERVISORS IN ORGANIZATION AND ADMINISTRATION OF KINDERGARTENS.

The tone of the reports of this phase of the subject indicates a good spirit of cooperation on the part of the superintendent, the school principal, the kindergarten teachers, and the kindergarten supervisor. This relationship offers an opportunity for truly democratic conduct, and while written reports can not be entirely relied upon for a statement of actual conditions, still, from the fact that principals and teachers and sometimes parents are called in consultation, it is evident that the ideals at work in these school relations are democratic, that there is a disposition to share responsibility, to hold conferences, and to act only as a result of united judgment.

The number of sessions a day, and the length of the sessions.—The degree of responsibility borne by the supervisor in regard to the number and length of sessions ranges from "making most of the decisions" to "no responsibility" whatsoever. In 16 cities[1] the supervisor has a large responsibility, consulting, of course, with the superintendent, the school principal, and the kindergarten teachers.

In 25 cities,[2] the supervisor acts in an advisory capacity, recommending to the board of education or school committee and to the superintendent measures concerning the number and length of sessions.

In 12 cities,[3] rulings in all such matters are made by the board of education. Supervisors in Ironwood, Mich., and Rutherford and Trenton, N. J., report: "The State laws govern the number and length of sessions."

Supervisors in 10 cities[4] report that when they assumed office the kindergartens were already organized and in running order. Supervisors in eight cities[5] write that they are only "partly responsible" for these details.

In 20 cities,[6] supervisors report that they are not at all responsible.

In the case of kindergartens controlled by associations,[7] the supervisor confers with the executive officers of the association and then renders decisions.

Number of children to each kindergarten; number of months children remain in kindergarten; promotion of children.—Measures relating to the size of the classes and the time of promotion from kindergarten to first grade are largely under the control of the super-

[1] Birmingham, Ala., Los Angeles, Sacramento, and Santa Barbara, Cal., Denver, Colo., Columbus, Ga., Crawfordsville and Vincennes, Ind., Fort Dodge, Iowa, Battle Creek and Detroit, Mich., Kansas City, Mo., Butte, Mont., Kearney, N. J., Schenectady and Syracuse, N. Y.

[2] Phoenix, Ariz., New Britain and South Manchester, Conn., Moline, Ill., Salina, Kans., Fall River and Worcester, Mass., Kalamazoo and Lansing, Mich., Gilbert, St. Paul, and Virginia, Minn., Lincoln, Nebr., Bloomfield, N. J., Albany, Buffalo, and Utica, N. Y., Cincinnati, Ohio, Oklahoma City, Okla., Philadelphia and Pittsburgh, Pa., Richmond, Va., Beloit, Fond du Lac, and Waukesha, Wis.

[3] Bakersfield and Oakland, Cal., Boston and Lowell, Mass., Muskegon, Mich., Minneapolis, Minn., Olean and Troy, N. Y., Scranton, Pa., Providence, R. I., Kenosha and La Crosse, Wis.

[4] Pasadena and Pomona, Cal., New London, Conn., Evansville and Hammond, Ind., Chisholm, Minn., St. Louis, Mo., Atlantic City, N. J., Toledo, Ohio, Antigo, Wis.

[5] New Haven, Conn., Peoria, Ill., Fort Wayne, Ind., Louisville, Ky., Bangor, Me., Cambridge, Mass., Dayton, Ohio, Salt Lake City, Utah.

[6] Waterbury, Conn., Washington, D. C., Michigan City, South Bend, and Terre Haute, Ind., Newton and Pittsfield, Mass., Bessemer, Grand Rapids, Houghton, and Jackson, Mich., Eveleth, Minn., Laurel, Miss., Jersey City, N. J., Binghamton, Ithaca, and Lockport, N. Y., Mansfield, Ohio, Fort Worth, Tex., Sheboygan, Wis.

[7] Atlanta and Savannah, Ga., Riverside Kindergarten Extension Association, Riverside, Ill., Indianapolis and Muncie, Ind.; Brooklyn Free Kindergarten Society, Brooklyn, N. Y.; Children's Aid Society, New York, N. Y.; New York Kindergarten Association, New York, N. Y.; St. Bartholomew's Parish, New York, N. Y.; Free Kindergarten and Industrial Association, Dallas, Tex.; Free Kindergarten Association, Norfolk, Va.

visor. Noticeable, too, is the extent to which the judgments of the school principal and of the kindergarten teachers enter into the decisions, especially in regard to promotions. This is the case in 44 cities.[1]

In 22 cities,[2] the supervisor offers advice and suggestions.

Supervisors in 11 cities[3] report that they have no responsibility in these matters. Supervisors in 5 cities[4] report that they are partly responsible; and those in 8 other cities[5] write that the kindergartens were already organized when they entered upon their duties.

The reports from Bakersfield and Oakland, Cal., Ironwood, Mich., and Beloit, Wis., refer to State laws which fix the age at which children shall be promoted from the kindergarten.

In the Bakersfield kindergartens the supervisor allows the enrollment to reach 50 and then establishes a waiting list. In Oakland the board of education granted the petition of the Kindergarten Club, composed of all the kindergarten teachers in the department, that 50 pupils be the maximum per teacher, the class to be divided into a morning group and an afternoon group as soon as the number enrolled exceeds 30. In regard to promotions, the supervisor in Oakland reports: "If the parents are willing, an immature child 6 years of age may be kept longer in the kindergarten, although by State law a child may enter primary at 6 years of age."

The report from Cincinnati mentions annual promotions in all the grades, including the kindergarten, and reports from Rutherford, N. J., and La Crosse, Wis., mention semiannual promotions. In exceptional cases, however, the supervisor and teachers may exercise discretion.

In Minneapolis, Minn., kindergarten children are promoted to first grade by maturity rather than by age.

Planning the kindergarten rooms.—It is a matter for surprise that supervisors, in the main, have such comparatively restricted latitude

[1] Birmingham, Ala., Phoenix, Ariz., Los Angeles, Sacramento, and Santa Barbara, Cal., Denver, Colo., New Haven and Waterbury, Conn., Columbus, Ga., Peoria, Ill., Crawfordsville, Evansville, Fort Wayne, South Bend, and Vincennes, Ind., Fort Dodge, Iowa, Salina, Kans., Louisville, Ky., Bangor, Me., Fall River, Newton, and Boston, Mass., Battle Creek, Detroit, Houghton, and Lansing, Mich., Eveleth and Minneapolis, Minn., Laurel, Miss., Butte, Mont., Lincoln, Nebr., Bloomfield and Kearney, N. J., Albany, Binghamton, Buffalo, Ithaca, Lockport, Olean, Schenectady, Syracuse, and Utica, N. Y., Dayton, Ohio, and Waukesha, Wis.

[2] New Britain and South Manchester, Conn., Moline, Ill., Lowell and Worcester, Mass., Kalamazoo and Muskegon, Mich., Gilbert, St. Paul, and Virginia, Minn., Omaha, Nebr., Rutherford and Trenton, N. J., Troy, N. Y., Cincinnati, Ohio, Philadelphia, Pittsburgh, and Scranton, Pa., Providence, R. I., Fond du Lac, Kenosha, and La Crosse, Wis.

[3] Washington, D. C., Michigan City and Terre Haute, Ind., Pittsfield, Mass., Grand Rapids and Jackson, Mich., Jersey City, N. J., Mansfield, Ohio, Oklahoma City, Okla., Fort Worth, Tex., Sheboygan, Wis.

[4] Cambridge, Mass., Bessemer, Mich., Kansas City, Mo., Salt Lake City, Utah, Richmond, Va.

[5] Pasadena and Pomona, Cal., New London, Conn., Hammond, Ind., Chisholm, Minn., Atlantic City, N. J., Toledo, Ohio, Antigo, Wis.

in room planning. Kindergarten rooms, and first-grade rooms as well, should be as unlike the traditional schoolroom as possible. The physical and social needs of young children demand that especial attention be paid to the hygienic, artistic, and convenient arrangements of the rooms and surroundings in which their education is carried on. Blackboards, cupboards, and window seats must be low enough for 5 and 6-year-old children to use with comfort; there must be abundant floor space for the free activities; the windows must be placed with reference to the hygiene of the eyes; and toilet-room conveniences must be planned for the best welfare and comfort of the small persons who use them.

In spite of the obvious need for the judgment of a trained kindergartner, the reports indicate that in 35 cities[1] the supervisor has no responsibility for planning the room. In 27 cities[2] the supervisor is sometimes consulted and is evidently permitted to give suggestions.

Larger powers are granted to supervisors in 15 cities,[3] for they submit plans and recommend measures which are usually carried out by the board of education and the superintendent. In Fort Wayne, Ind., the supervisor "may arrange plans provided she keeps within the first bid of the contractor."

In only 9 cities does it appear that a desirable degree of cooperation exists between the kindergarten supervisor and the school architect; and of these 9, supervisors in 5[4] report that the architect accepts the recommendations and suggestions of the supervisor and kindergarten teachers; in the other 4 cities[5] the architect submits his plans for kindergarten rooms to the supervisor for her approval. In Minneapolis the architect consults the supervisor concerning such details as spaces for pictures, amount of blackboard space, kindergarten cupboards, etc. In Cincinnati the art supervisor is often called in consultation.

Supervisors in Redlands, Cal., Laurel, Miss., Albany and Schenectady, N. Y., report that their responsibilities are confined to the ar-

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[1] Birmingham, Ala., Pomona, Cal., New London and Waterbury, Conn., Columbus, Ga., Moline, Ill., Evansville, Hammond, Michigan City, and Terre Haute, Ind., Louisville, Ky., Cambridge, Lowell, Newton, and Pittsfield, Mass., Bessemer, Houghton, Kalamazoo, and Lansing, Mich., Eveleth and Virginia, Minn., Butte, Mont., Concord, N. H., Binghamton, Ithaca, and Lockport, N. Y., Mansfield, Ohio, Fort Worth, Tex., Salt Lake City, Utah, Richmond, Va., Antigo, Fond du Lac, Kenosha, La Crosse, and Sheboygan, Wis.

[2] Phoenix, Ariz., Pasadena, Cal., New Haven, Conn., Washington, D. C., Peoria, Ill., Crawfordsville, South Bend, and Vincennes, Ind., Coffeyville and Salina, Kans., Bangor, Me., Fall River and Worcester, Mass., Battle Creek and Jackson, Mich., Gilbert and St. Paul, Minn., Lincoln, Nebr., Atlantic City, Jersey City, Rutherford, and Trenton, N. J., Olean and Utica, N. Y., Philadelphia, Pa., Providence, R. I., Waukesha, Wis.

[3] Bakersfield, Los Angeles, Sacramento, and Santa Barbara, Cal., Denver, Colo., New Britain and South Manchester, Conn., Fort Wayne, Ind., Fort Dodge, Iowa, Boston, Mass., Chisholm, Minn., Kansas City, Mo., Dayton, Ohio, Scranton, Pa., Beloit, Wis.

[4] Oakland, Cal., Detroit and Grand Rapids, Mich., Minneapolis, Minn., Buffalo, N. Y.

[5] Kearney, N. J., Syracuse, N. Y., Cincinnati, Ohio, Pittsburgh, Pa.

rangement of furniture and the details of decoration in kindergarten rooms already existing. The supervisor in Toledo may select rooms suitable for the kindergartens in the new school buildings in course of erection.

The report from Worcester, Mass., contains this significant item:

> The kindergarten subcommittee of the Worcester school board recently went on record in a request to the superintendent of public buildings that arrangements be made in every new building and every addition to an old building for a kindergarten room.

Provision for gardening and other out-door work.—A maximum of out-door life is important for children, and actual contact with plants and animals such as is possible only out of doors is a vital element in child life. Kindergarten teachers are trained to recognize these values, and, in spite of difficulties of climate and popular objections to exposure, they strive to have the children in the open air a great deal of the time.

The responsibility of arranging for gardening in connection with the kindergartens is in the hands of the supervisors in 22 cities.[1] In one of these, Columbus, Ga., the supervisor insists upon gardening as a necessary part of the kindergarten course. From Salina, Kans., the supervisor writes: "We had very successful individual gardens." The arrangement in Rutherford, N. J., is such that four kindergartens share in one general garden. In Cincinnati the supervisor assists in providing gardens but is not always directly responsible for them. The report continues:

> Often the kindergartner, with the consent of the principal of the school and the supervisor of kindergartens, arranges for space in the neighborhood if there is nothing available in the school yard. Each fall the supervisor arranges with the park commissioner for space in the parks for bulbs, and the park gardener assists in the planting. All the schools in the down-town district use these beds.

Of 13 other cities having outdoor work, the chief responsibility in 7 of them[2] rests upon the principal of the school building and the kindergarten teachers. In 3 cities[3] the superintendent of schools, advised by the kindergarten supervisor, sees that there are kindergarten gardens. Teh rules of the school committee in Lowell, Mass., provide for gardening activities. In Birmingham, Ala., there is a supervisor of gardens who cooperates with the kindergarten teachers in providing gardening facilities for the young chil-

[1] Los Angeles and Santa Barbara, Cal., Denver, Colo., New Haven, Conn., Columbus, Ga., Fort Wayne, South Bend, and Vincennes, Ind., Salina, Kans., Jackson and Lansing, Mich., Chisholm and Minneapolis, Minn., Butte, Mont., Atlantic City and Rutherford, N. J., Schenectady and Utica, N. Y., Cincinnati, Dayton, and Mansfield, Ohio, Scranton, Pa.

[2] Oakland and Redlands, Cal., Evansville, Ind., Boston, Mass., Bloomfield and Trenton, N. J., Buffalo, N. Y.

[3] New Britain, Conn., Crawfordsville, Ind., Coffeyville, Kans.

dren. The kindergarten supervisor in Philadelphia plans the kindergarten gardens in cooperation with the regular school gardens.

In 16 cities [1] the kindergarten supervisor encourages, advises, and urges the teachers to include gardens in the activities of the kindergarten. The supervisor in Pittsfield, Mass., herself provides the seeds. The supervisor in Grand Rapids, Mich., provides the necessary implements. The supervisor in Pittsburgh, Pa., with wise prevision recommends to the school building committee that gardens be included in all the school plans.

Supervisors in 15 cities [2] report that they have no responsibility in this particular matter.

The obstacles of adverse climate and lack of ground space, and some of the alternatives practiced where gardens are not possible are brought to light in reports from 20 cities where little or no outdoor gardening is done. In South Manchester, Conn; Peoria, Ill.; Bangor, Me.; Concord, N. H.; and Troy, N. Y., no gardening is carried on. In Bakersfield, Cal.. and Washington, D. C., the children of the kindergartens share garden space with the rest of the school where such space exists; otherwise indoor boxes are provided or the children are encouraged to do home gardening. In Louisville, Ky., and Virginia, Minn., ground space can rarely be secured. The season in Houghton, Mich., is too short for school gardens, but the supervisor urges and helps to plan home gardens. Home gardens are emphasized also in Hammond, Ind. The weather being prohibitive, little outdoor work is possible in Gilbert, Minn. The size of the class and the location of the school determine the amount and kind of outdoor work done in Albany, N. Y. Gardening is optional where ground space permits in Terre Haute, Ind., and Newton, Mass. Kansas City, Mo., reports no gardening but good playground equipment for the kindergartens. Laurel, Miss., and La Crosse, Wis., provide for excursions and field trips. In Kearney, N. J., the director of physical education confers with the kindergarten supervisor in regard to outdoor games. Fort Dodge, Iowa, reports that provision for outdoor work is coming about gradually.

Reports from supervisors of association kindergartens indicate that gardening is encouraged and carried on wherever space can be secured.

Supply of kindergarten materials.—Because of the special and technical nature of the materials used in the kindergarten, the supervisor and kindergarten teachers bear the chief responsibility for

[1] Pasadena and Sacramento. Cal., Pittsfield, Mass.. Battle Creek, Bessemer, Detroit, and Grand Rapids, Mich., St. Paul, Minn., Jersey City, N. J., Binghamton and Syracuse, N. Y., Pittsburgh, Pa., Salt Lake City, Utah, Richmond, Va., Beloit and Kenosha, Wis.

[2] Phoenix, Ariz., Pomona, Cal., New London and Waterbury, Conn., Cambridge, Mass., Kalamazoo, Mich., Eveleth, Minn., Lincoln. Nebr., Ithaca and Lockport N. Y., Providence, R. I., Fort Worth, Tex., Antigo, Fond du Lac, and Sheboygan, Wis.

selecting and ordering the supplies. In 57 cities[1] the supervisor is entirely responsible, "subject to financial limitations," say the reports from Ironwood, Mich., and Fond du Lac, Wis. In Concord, N. H., the supervisor not only orders the materials, but also cares for them. In Grand Rapids, Mich., the supervisor receives requests from the teachers and does the purchasing.

In 14 cities[2] it is the teachers who prepare requisition lists and submit them to the supervisor for approval. The practice in Oakland, Cal., is to decide on the supplies by a vote of the kindergarten teachers as a body.

In Birmingham, Ala., Coffeyville, Kans., Houghton, Mich., and Omaha, Nebr., the supervisor prepares the lists and sends them to the superintendent for approval. In Bloomfield, N. J., the teachers send lists directly to the superintendent after having had a conference on the subject with him.

It is the custom in Bakersfield, Cal., Lansing, Mich., Rutherford, N. J., Troy, N. Y., and Scranton, Pa., for supervisor and teachers to confer over the lists, then send requisitions to the board of education.

In Boston the supervisor recommends and approves the lists, and action is taken by the board of superintendents. The supervisor in Cincinnati orders and apportions the supplies, and the business department of the school system secures bids, makes purchases, and distributes the materials.

Supplies are provided according to the rulings of the school committee in Lowell, Mass.

In 10 cities[3] the supervisor acts as adviser or assumes a slight degree of responsibility. In Phoenix, Ariz., Waterbury, Conn., Evansville, Ind., Eveleth, Minn., and Sheboygan, Wis., the supervisor reports "no responsibility."

In the case of groups of kindergartens supported by associations, the supervisor has a large share of responsibility.

The materials for the kindergartens supported by the New York Kindergarten Association are supplied from a "Penny Fund" contributed by the children.

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[1] Los Angeles, Pomona, and Santa Barbara, Cal., Denver, Colo., New Haven and South Manchester, Conn., Washington, D. C., Columbus, Ga., Moline and Peoria, Ill., Crawfordsville, Fort Wayne, Hammond, South Bend, Terre Haute, and Vincennes, Ind., Fort Dodge, Iowa, Salina, Kans., Louisville, Ky., Bangor, Me., Newton, Pittsfield, and Worcester, Mass., Detroit, Grand Rapids, Ironwood, Jackson, Kalamazoo, and Muskegon, Mich., Chisholm, Minneapolis, and Virginia, Minn., Kansas City, Mo., Butte, Mont., Lincoln, Nebr., Concord, N. H., Jersey City, Kearney, Perth Amboy, and Trenton, N. J., Albany, Binghamton, Buffalo, Ithaca, Syracuse, and Utica, N. Y., Dayton and Mansfield, Ohio, Oklahoma City, Okla., Philadelphia, and Pittsburgh, Pa., Fort Worth, Tex., Ogden and Salt Lake City, Utah, Fond du Lac, La Crosse, and Waukesha, Wis.

[2] Oakland, Redlands, and Sacramento, Cal., New London, Conn., Cambridge and Fall River, Mass., Battle Creek, Mich., Laurel, Miss., Atlantic City, N. J., Schenectady, N. Y., Providence, R. I., Antigo, Beloit, and Kenosha, Wis.

[3] Pasadena, Cal., New Britain, Conn., Michigan City, Ind., Bessemer, Mich., Gilbert and St. Paul, Minn., Lockport and Olean, N. Y., Toledo, Ohio, Richmond, Va.

7. THE KINDERGARTEN PROGRAM OR COURSE OF STUDY.

The supervisor's share in program making.—Some degree of responsibility for the kinedrgarten plan or program is assumed by almost every supervisor. In the main, the supervisor supplies and emphasizes the essential principles of program making and holds meetings with the teachers for the purpose of discussing and preparing plans of work. Upon the teachers is placed the responsibility for adapting the general principles to the specific conditions and needs of their respective groups of children.

Some supervisors supply their teachers with a yearly or quarterly, or monthly outline, printed or typed; in some cases these outlines are included in the printed courses of study provided for all the grades. A handbook covering the year's work is given to the kindergarten teachers in Denver.

In some instances teachers are required to send their plans for a week or a month in advance to the supervisor for her modifications and suggestions. In other instances, the supervisor defines the standards and aims and looks to the teachers to bring about the desired results.

Methods employed in preparing the program.

	Number of supervisors.[1]
Supervisor holds program meetings, discussions, conferences with teachers; enunciates general principles	58
Supervisor provides printed or typed course of study; yearly, quarterly, or monthly outlines suggestive in character	24
Teachers submit plans to supervisors for modifications	10
Each teacher makes her own plans entirely	8
Supervisor defines aims and standards; results are expected from teachers	4
Miss Blow's uniform program is followed	3
Supervisor gives fixed program; teachers modify it as to details	2
Experienced teachers plan their own programs; inexperienced teachers submit plans to the supervisor	1

How supervisors secure creativeness from the teachers.—Originality and creativeness are terms capable of more than one interpretation, and covering a wide range of departures from the conventional. For this reason, not the least of the kindergarten supervisor's problems is that of leading teachers to use such excellent discernment that they may be able to judge between what is genuinely creative in their own work and what is merely unusual or positively freakish.

To this end, supervisors repeatedly stress the essential principles of education as distinct from teaching devices, and lay emphasis upon the necessity for considering the limitations as well as the

[1] Including supervisors of association kindergartens.

possibilities that lie within the material used in the kindergarten. The teachers, therefore, are requested to bring with them to program meetings models of handwork, ideas for the use of nature materials, suggestions for games and rhythms, and plans for exhibits. These contributions are then judged by teachers and supervisor according to accepted standards of excellence, and the best ones selected to be worked out in the kindergartens.

By way of encouragement of valid originality, it is the practice of some supervisors to arrange a meeting of all the teachers in the kindergarten room of one who is doing noteworthy work and is willing to demonstrate it to her fellow teachers; in some instances, individual teachers are sent to observe the original work of one of their number. Some supervisors attend State and National conventions and bring back stimulating suggestions, ideas, and material that can be applied to local conditions; some supervisors make it possible for the teachers themselves to attend conventions or visit out-of-town kindergartens. Making teachers responsible for developing and demonstrating certain subjects at the teachers' meetings, and encouraging them to experiment with various materials are other methods employed by supervisors.

Summary of the means used by supervisors and number of times each method is mentioned.

	Times mentioned.
Much freedom allowed to teachers and their personality permitted to show itself; the program kept flexible	33
Reports, new ideas, suggestions, contributions brought by teachers and supervisor to group meetings, and use made of such contributions	26
Details left to teachers, responsibilities for the kindergarten placed definitely upon them; also responsibilities connected with teachers' meetings	24
Successes and signs of originality encouraged and emphasized; restraint is placed upon criticism of results	20
Meetings arranged at kindergarten rooms where teachers doing original work demonstrate it; individual teachers visit such kindergartens	10
Teachers urged to visit out-of-town kindergartens; to read and study; to see and discuss new ideas in operation; to experiment with methods and materials	10
Teachers required to submit written program in advance for criticism	8
"Only well-trained teachers are employed"	2
"Do not secure it"	1

8. VISITS TO KINDERGARTENS—INTERVIEWS AND MEETINGS WITH TEACHERS.

Frequency of visits.—The determining factors in the number of visits paid annually to each kindergarten are the number of kindergartens under the charge of a supervisor, and the needs of individual kindergartens. While a regular schedule of frequency is the aim

of the supervisor, she breaks in upon the regularity in case the younger and inexperienced teachers require more of her assistance.

In Philadelphia, with 271 kindergartens; Boston, with 143; Los Angeles, with 137; and Pittsburgh, with 100, the supervisor can visit each kindergarten not oftener than once or twice a year, exceptions being made in cases of special need. The supervisor in Pittsburgh reports: "I plan to visit each kindergarten twice a year; my assistant visits them three times a year. Many more visits than these are made to kindergartens which require special help." Detroit has 116 kindergartens; each one receives three visits a year. Washington, D. C., with 79 kindergartens, reports about three visits a year to each kindergarten.

Supervisors in Minneapolis, St. Louis, Cincinnati, and Richmond relate the frequency of their visits to the needs of each kindergarten; in Jersey City and Ogden visits are made "as often as possible"; while in New Haven, South Manchester, and Oakland the supervisors do not adhere to any regular schedule.

In Denver, Grand Rapids, Kansas City, Trenton, Buffalo, and Sheboygan supervisors visit each kindergarten four or five times a year. Seven visits a year is the schedule in Albany, Oklahoma City, and Salt Lake City; eight visits in St. Paul, and ten in Worcester.

A monthly visit is the practice in 31 cities.[1] In Pomona, Terre Haute, Battle Creek, Lincoln, and Troy, once in three weeks is the schedule. Once in two weeks is the rule in 13 cities,[2] Pasadena, however, stretching the time to once in 16 days. In Crawfordsville, Syracuse, and Bloomfield the rule is three times a month.

Weekly visits are made in Columbus (Ga.), Fort Dodge, Muskegon, Chisholm, Eveleth, Laurel, Fond du Lac, and Kenosha. Twice a week is the rule in Houghton and Rutherford. In Bangor the supervisor reports that she spends nearly every morning in a kindergarten.

In each of four cities—Bakersfield, Concord, Mansfield, and Salina—the supervisor directs one kindergarten and makes supervisory visits to the other classes several times a year. In Bakersfield the time allowance for visiting is one day each week.

Supervisors of groups of kindergartens controlled by an association pay visits weekly, monthly, or according to the needs of the individual kindergartens.

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[1] Birmingham, Ala., Phoenix, Ariz., Redlands and Santa Barbara, Cal., New Britain and Waterbury, Conn., Evansville, Fort Wayne, and Michigan City, Ind., Louisville, Ky., Cambridge, Fall River, Lowell, and Pittsfield, Mass., Bessemer, Ironwood, Jackson, and Lansing Mich., Omaha, Nebr., Atlantic City, Perth Amboy, N. J., Ithaca, Lockport, Schenectady, and Utica, N. Y., Toledo, Ohio, Scranton, Pa., Providence, R. I., Antigo, Beloit, and La Crosse, Wis.

[2] Pasadena and Sacramento, Cal., Moline and Peoria, Ill., Hammond and South Bend, Ind., Coffeyville, Kans., Kalamazoo, Mich., Gilbert and Virginia, Minn., Kearney, N. J., Olean, N. Y., Dayton, Ohio.

Length of visits.—Like the frequency of visits, their duration varies in relation to need and circumstance. By some supervisors, the entire session of two and one-half or three hours is regarded as essential to effective supervision. This is the case in 20 cities,[1] in one of which, Fond du Lac, the time is divided between the kindergarten and the primary room in each building.

In 15 cities [2] the minimum length of a visit is between one and two hours.

In 22 cities [3] the minimum length is one hour, but the supervisor in Waterbury makes a point of spending an *entire* session once a year in each kindergarten. In Boston the supervisor plans to stay not less than one hour in one room unless there are three kindergartens in the same building; in this event, she goes from one to another every few minutes.

Briefer visits are the rule in 30 cities,[4] the length ranging from 15 to 45 minutes. In Houghton extreme brevity is achieved, the minimum being 5 minutes, the maximum 60 minutes.

In Moline, Laurel, Jersey City, Cincinnati, and Philadelphia, no set duration is observed, the demands of the occasion determining the length of the visit.

Supervisors of association kindergartens, as a rule, let their visits cover the entire session.

No positive assertion can be made regarding the connection between effective supervision and the length of the supervisor's visit; but, obviously, experience must be a potent factor in quickening the perceptions and clarifying the judgments of an observer. Interesting testimony on this point is contained in Miss Dozier's Leaves from a Supervisor's Notebook.[5] In 1876 Miss Dozier became one of two supervisors placed in charge of the public school kindergartens of St. Louis. Describing the events of those pioneer days, when Dr.

[1] Redlands, Cal., South Manchester, Conn., Washington, D. C., Coffeyville, Kans., Grand Rapids, Ironwood, and Kalamazoo, Mich., Minneapolis, Minn., Kansas City, Mo., Omaha, Nebr., Concord, N. H., Rutherford, Trenton, N. J., Albany, Troy, N. Y., Mansfield, Ohio, Oklahoma City, Okla., Ogden, Utah, Fond du Lac and Sheboygan, Wis.

[2] Phoenix, Ariz., Bakersfield, Cal., Michigan City and Terre Haute, Ind., Louisville, Ky., Pittsfield, Mass., Bessemer, Jackson, and Muskegon, Mich., Perth Amboy, N. J., Buffalo and Utica, N. Y., Toledo, Ohio, Richmond, Va., La Crosse, Wis.

[3] Birmingham, Ala., Los Angeles, Pasadena, Pomona, and Santa Barbara, Cal., New Britain, New Haven, and Waterbury, Conn., Columbus, Ga., Peoria, Ill., Crawfordsville and South Bend, Ind., Fort Dodge, Iowa, Boston and Lowell, Mass., Detroit and Lansing, Mich., St. Louis, Mo., Lockport, N. Y., Dayton, Ohio, Fort Worth, Tex., Beloit, Wis.

[4] Sacramento, Cal., Denver, Colo., Evansville, Fort Wayne, Hammond, Ind., Bangor, Me., Cambridge, Fall River, and Worcester, Mass., Battle Creek, Crystal Falls, and Houghton, Mich., Chisholm, Eveleth, Gilbert, St. Paul, and Virginia, Minn., Lincoln, Nebr., Atlantic City, Bloomfield, and Kearney, N. J., Ithaca, Olean, and Schenectady, N. Y., Pittsburgh and Scranton, Pa., Providence, R. I., Salt Lake City, Utah, Antigo and Kenosha, Wis.

[5] Kindergarten Review, January, February, and March, 1909.

William T. Harris, the superintendent of the St. Louis schools, was desirous of proving the practicability of introducing kindergartens into the school system, Miss Dozier says:

> With the rapid increase in the number of kindergartens, a new problem arose. I could not make a short visit to a kindergarten suffice for my observations. Again I went to Dr. Harris; and when he told me the time would come when I could enter a kindergarten and in five minutes determine the tendencies of the work, I doubted his statement. With 68 kindergartens to be seen and helped, I learned my lesson. In the end I could enter a kindergarten and at a glance take in the environment, determining the questions of orderliness, good or bad housekeeping. A look at the desk, piano, window-sills, and the work of the children as it lay spread out on the tables, was sufficient to arrive at the teacher's orderliness in space, and it was also a revealer of her mental orderliness. A glance would acquaint me with the teacher's fullness or poverty of æsthetic taste. One searching look, and the measure of the children's interest and attention was known. The teacher's poise, a happy, cheerful, busy, genuine atmosphere was at once felt. * * * I understood the teacher's power of control. I could detect the hygienic conditions and how faithfully the janitor performed his duties.

Nature and purpose of visits.—The aims and ideals held in the minds of kindergarten supervisors in respect to their relations with the teachers under their charge are abundantly revealed in the reports concerning the nature of the visits to the kindergartens. The many times that friendliness, kindliness, helpfulness, and tact are mentioned, indicate the high value attached to these personal qualities, and show an earnest intention on the part of the supervisors to perform their obligations in a commendably sympathetic frame of mind.

"To give helpful suggestions," "to advise," "to assist teachers with their difficulties," "to cooperate in all possible ways," "to encourage, inspire, stimulate," "to praise good work," are expressions of frequent occurrence. It is interesting to note in this connection that the personal characteristics which kindergarten supervisors consciously aim to exhibit toward their teachers are the very ones which teachers appreciate most highly according to a study of Teachers' Estimates of Supervisors,[1] by Grace E. Bird. In her study Miss Bird remarks:

> The quality receiving the highest number of votes was friendly sympathy or kindly encouragement, with a percentage of 55. For the sake of brevity this might be called kindness. In a former experiment the same quality received the largest number of votes among 150 normal-school girls, 253 high-school boys, and 139 high-school girls, in estimating the best qualities of the best teachers they ever had. * * * So far, it seems that in school work this simple Christian virtue is more appreciated than any other quality, either affective or intellectual.

[1] School and Society, June 16, 1917.

When it comes to a matter of supervisory practice, the reports indicate a variety of aspects. Criticisms of a positive or constructive character are the rule. Some supervisors follow up their suggestions by giving a demonstration of the desired method. Conducting the morning circle, telling stories, leading the games, developing an exercise in handwork, are some of the forms of demonstration.

Observation, with a view to conferring with the teachers later on, is another practice. Some supervisors direct their observations chiefly toward the conditions and needs of the children; some toward the kindergarten room in respect to its order, hygienic condition, and decorations; other focus their attention upon the methods, manners, and spirit of the teachers with the children; and still others observe closely the way the teachers are developing the program-thought and handling the material.

The statement is made by several supervisors that one purpose of their visits is to keep in touch with the children themselves, and thus to gain fresh inspiration.

When arranged in order of frequency of mention, the nature and purpose of visits stand as follows:

Nature and purpose of visits.

	Times mentioned.
To give helpful suggestions, friendly aid, kindly advice, sympathetic cooperation	40
To offer constructive and appreciative criticism	25
To observe, study, compare, with a view to conferring with teachers later on	22
To *show how*, to take part in morning circle, game circle, story-telling, gift work and handwork	18
To judge of efficiency, methods, manners, and spirit of teachers with children	18
To encourage, stimulate, inspire	16
To confer with teachers at close of session, to interchange ideas, to discuss	10
To inspect, to exercise general supervision	10
To note the conditions and needs of children	9
To judge of organization, to note the kind of discipline, to rate the teachers, to get the atmosphere of the room	7
To see how the work is developed by the teachers and how the program is carried out	6
To note the condition of the room as to its orderliness, hygienic condition, decorations	5
To correct the work and point out defects	3
To see that students from the training school are gaining proper experience in practice teaching	3
To keep in touch with childhood and thus gain inspiration	3
To ascertain what parent-calls should be made	1

For the sake of comparison, the qualities and practices enumerated in Miss Bird's study of Teachers' Estimates of Supervisors are herewith appended:

	Percentages of frequency of mention.
Kindness or sympathy	55
Systematic individual supervision	48
Cooperation	16
Executive ability	10
Professional knowledge	10
Progressiveness	8
Leadership in the community	8
Reliable judgment	7
Broad scholarship	5

Individual interviews.—It is impossible to emphasize too strongly the necessity for tact and good judgment on the part of the supervisor in holding interviews with teachers. A teacher's usefulness may be permanently enhanced or irredeemably stunted according to the attitude of the supervisor toward her and her daily problems.

In order that the greatest amount of encouragement and help may accrue to the teachers, the time immediately following a visit to a kindergarten is, as a rule, devoted to the personal conference. The problems are then apparent, the situation fresh in mind, and the supervisor's suggestions are timely.

Some supervisors observe office hours and receive individual teachers at such times. Others hold interviews by appointment, or at the request of teachers, or whenever a need arises. One supervisor reports that the telephone is sometimes employed for the conference.

Group meetings.—Meetings of supervisor with teachers, held monthly or oftener, are the rule. In cities having several hundred kindergartners, the supervisor finds it necessary to call together the teachers of one district at a time, in order to preserve the informal and helpful character of the meetings.

Much variety is noticeable in the nature of the meetings, not only in respect of one city taken with another, but also in respect of one meeting with another in the same city. The discussion of business connected with supplies and other administrative details occupies but a small portion of the time. Discussions of the program or plan of work, discussions of topics selected or assigned in advance to individuals or groups, discussions of general educational principles and of new educational movements, both within and apart from the kindergarten, interchange of ideas and methods between the kindergarten teachers and grade teachers, as well as the demonstration of practical phases of work, occupy the meeting period of one to two hours.

The following arrangement, according to the number of times each kind of purpose is mentioned, speaks for itself:

Nature and purpose of meetings.

	Times mentioned.
To discuss kindergarten program or course of study and problems and needs	50
To discuss general educational principles and assigned or chosen topics and to hear reports from groups of teachers to whom topics have been assigned	49
To demonstrate practical phases of work with children or with teachers; games, handwork, and suggestive exercises given by supervisor; to discuss plans for mothers' meetings	27
To gain mutual stimulus and inspiration; to raise standards and improve methods; to unify but not uniformize the work in the kindergartens	26
To exchange experiences as to subject matter and methods, as to new lines of work being tried out in kindergartens, tests, and experiments; to introduce new ideas	26
To gain broader acquaintance with kindergarten interests, current literature, conventions, methods of organization	12
To exchange ideas with grade teachers as to subject matter and methods in relation to the child and the curriculum of the grades	12
To discuss new educational movements apart from the kindergarten	8
To listen to lectures; to hear speakers from a distance	3
To study great literature occasionally for self renewal and refreshment	1

9. POINTS UPON WHICH SUPERVISORS BASE THEIR ESTIMATES OF KINDERGARTEN TEACHERS' ABILITY.

While the qualities upon which supervisors base their estimate of teachers do not differ essentially from those deemed valuable in grade teachers, certain of them receive a greater emphasis in the training schools which specialize in preparing kindergarten teachers.

The right kind of kindergarten work requires certain native qualities in the young women desiring to become kindergarten teachers. These qualities, the spirit of nurture or mothering, a sympathetic understanding of how a little child feels and thinks, and insight into the significance of crude beginnings, are the very ones the kindergarten training school consciously aims to develop and intensify in the students-in-training.

Grade teachers, on the other hand, are trained to consider and deal with the child as a *learning* being, and not primarily as a feeling, doing individual.

During the period of training, the kindergarten student has much personal contact with children. Her experience in observation and practice teaching awakens in her the vitality of interest so characteristics of all kindergartners and enables her to translate the kindergarten spirit and philosophy into actual conduct.

The qualities upon which the supervisors base their judgment of a teacher's ability can be grouped under the following heads: (1)

Personal character and qualities; (2) Results of teaching as evidenced in the development of the children; (3) Background of scholarship and technical ability; (4) Attitude toward the school and the community.

A study of each one of the groups of qualities yields the following enumeration placed in order of frequency of mention:

Personal character and qualities.

	Times mentioned.
Sympathy, understanding, seeing from the child's standpoint, play-spirit	36
Personality, charm, womanliness, mother-spirit, culture	32
Professional spirit, loyalty	28
Personal appearance, neatness in dress, cleanliness, observance of personal hygiene, health, orderly housekeeping	20
Adaptability, common sense, tact, good judgment, "brains"	15
Poise, manner, self-control	11
Flexibility, open-mindedness, ambition, ability to grow	11
Originality, resourcefulness	8
Idealism, vision	4
Cheerfulness, humor	4
Obedience to authority	2

Results as evidenced in children's development.

	Times mentioned.
Vitality of program, systematic progress and development of children	34
Teaching ability as shown in children's power to think, to express themselves, and to control themselves in behavior	31
Atmosphere of the kindergarten, happiness of teacher and children together	23
Management and discipline of children through their activities rather than through repression	22
Interest of children as shown in good attendance	17
Children's good work in first grade	11

Background of scholarship and technique.

	Times mentioned.
Technique as to materials, methods, and activities; artistic ability, ability in music, in use of good English	33
Intellectual strength and breadth, scholarship, educational background, interest in reading and study, knowledge and application of kindergarten principles	23
Good training, professional equipment, preparation, experience	21
Executive ability, effort, initiative, vitality, attention to school business	18

Attitude toward school and society.

	Times mentioned.
Interest in education in general, desire to cooperate with the rest of the school, especially with primary grades	21
Atttitude toward home, parents, neighborhood; recognition of kindergarten as a link between home and school	9
Ability to develop community sentiment in favor of the kindergarten	3

10. METHODS OF STIMULATING TEACHERS TO FURTHER STUDY.

The problem of what is termed the "after-training of teachers" is a persistent one. The supervisor, true to all that is implied in the word *super*-vision, is continually seeking to draw the body of teachers to the levels of vision and insight enjoyed by herself; while the teachers, absorbed in the details of each day's technique, are sometimes apt to forget their obligations to grow in insight and in knowledge of principles, and to overlook the fact that increased familiarity with principles will enable them to correct and improve faulty technique.

It is generally recognized that good books and magazine articles, summer school sessions, educational meetings, courses of lectures, and exchange of visits, when properly used, are means of stimulating professional growth in a teacher. The endeavors of supervisors, therefore, are in the direction of securing contacts between the teachers and these media of development. Teachers are advised, invited, urged to read and study, sometimes under the leadership of the supervisor, sometimes in self-organized study groups; they are encouraged to take courses of lectures and attend summer school sessions; and arrangements are made whereby they may visit kindergartens and first-grade classes in their own and neighboring cities.

It is worthy of note that only three supervisors report as "unsuccessful" their efforts to stimulate teachers to further study.

Equally noteworthy is it that in few instances is mention made of devices which savor of whipping teachers into extension of their studies, such as formal rating, required reading-circle work, promotional examinations, or required attendance at summer schools before being granted a salary increase.

In one city teachers who "branch out" are starred. In two other cities study is required of all teachers, one supervisor stating that special classes for required study are provided, the other stating that a teacher's increase in salary depends upon his university credits.

Methods employed by supervisors in order of frequency of mention are as follows:

Methods of stimulating to further study.

	Times mentioned.
Suggest and urge reading books and magazine articles; provide list of references to publications	32
Provide and make it possible for teachers to attend lectures given by specialists, or to take courses of study during the year	26
Arrange for discussions at teachers' meetings of books and articles, also of matters of general educational interest	17
Urge attendance at educational conventions and summer-school sessions	14

	Times mentioned.
Keep teachers informed of new methods of work done in schools and colleges and by prominent kindergartners, bring back ideas and reports from educational meetings	13
Read with the teachers, set the example of study as well as urge others to it	13
Make teachers responsible for preparing papers and reports for meetings, and encourage the formation of study clubs	12
Send teachers to visit other kindergartens and first-grade classes in their own and neighboring cities, and secure from outside kindergartners reports concerning their activities	10
Provide a library of books and magazines for teachers	6
Urge individuals to attain to higher standards	5
Arouse in teachers an interest in making experiments	4
Advise further study	3
"Unsuccessful"	3
"Require study of all teachers"	2
"Star the teacher who branches out"	1

11. RELATION OF SCHOOL PRINCIPALS TO KINDERGARTEN TEACHERS AND KINDERGARTEN SUPERVISORS.

By virtue of belonging to the public school system, every kindergarten is an integral part of the school in which it is maintained and necessarily conforms to the general rules of the school.

The principals of schools, therefore, hold themselves responsible for the kindergartens in regard to matters of general management, and so far as concerns good work in the school as a whole, but rarely in regard to the methods or materials or technique employed by the kindergarten teachers.

In some instances the principal advises with the kindergarten supervisor in respect to desirable standards and results by which the work of the kindergarten teachers may be measured, and cooperates with the supervisor in passing judgments upon the qualities of the teachers.

Several supervisors report that the principal calls attention to certain deficiencies in the work of teachers and indicates where closer supervision should be exercised.

12. RELATION OF SUPERVISORS OF SPECIAL SUBJECTS (MUSIC, ART, MANUAL TRAINING, PHYSICAL EDUCATION) TO THE KINDERGARTENS.

The spirit prevailing among supervisors of special subjects and the kindergarten supervisor and teachers is one of friendly cooperation; but, with a few exceptions, special supervisors exercise no official control over the kindergartens.

The reasons for this are apparent. Music, art, manual activities, and physical training, as they *relate to the development of young*

children, are subjects of instruction in the kindergarten training schools. The capacities and interests of children of kindergarten age are also subjects of instruction in the kindergarten training schools. It is a matter of presupposition, therefore, that kindergarten teachers are prepared to lead the children up from one level to another of appreciation and technical skill in these forms of human expression, always mindful of the individual child's needs and abilities.

Supervisors of special subjects, on the other hand, are interested largely in their respective subjects; their experience, too, has usually been with older children; and yet they possess a comprehensive knowledge of music, art, handcraft, or physical education. This comprehensive knowledge enables the special supervisors to indicate worthy standards and clarify aims for their coworkers in the kindergarten.

It seems a wise plan, then, that the kindergarten supervisor and teachers should carry on the actual work with the children, availing themselves meantime of the unofficial help generously offered by the specialists.

Opportunities for receiving such suggestions and inspiration are afforded by informal conferences and occasional group meetings of kindergarten teachers to which the special supervisors come by request. In some instances, supervisors of special subjects respond to invitations to visit the kindergartens.

Exceptions to the rule of nonofficial relations exist in a number of communities as listed below:

Birmingham, Ala. The music supervisor or assistant pays regular visits to the kindergartens. In the training school she outlines the work and sets the standards.

Oakland, Cal. The supervisor of drawing discusses with the kindergarten teacher the work of the first grade, and points out in what respects the work in the kindergarten is a preparation for the first grade.

Columbus, Ga. The music supervisor instructs the kindergarten supervisor and teachers and visits the kindergartens once a week.

Evansville, Ind. To a slight extent the kindergartens are supervised by the music and art supervisors.

Fort Wayne, Ind. The art supervisor directs the art work of the kindergartens.

Fort Dodge, Iowa. The music supervisor directs the music work in the kindergartens.

Coffeyville, Kans. Special supervisors hold weekly meetings with the kindergarten teachers.

Louisville, Ky. The music supervisor meets monthly with the kindergarten teachers.

Battle Creek, Mich. The music supervisor visits the kindergartens weekly, offers suggestions, but exercises no control.

Grand Rapids, Mich. The music supervisor has full supervision of the music in the kindergartens, outlines all the work, instructs the teachers in methods, and selects all the songs.

Eveleth, Minn. The supervisors of music and art give to the kindergarten teachers monthly outlines; they make reports and hold meetings.

St. Paul, Minn. The supervisors of music and art and the physical director hold meetings once a semester with the kindergarten teachers and suggest outlines of work.

Laurel, Miss. The music supervisor plans the songs to be sung in the kindergartens.

Butte, Mont. The supervisors of music and art outline the work, visit the kindergartens, and hold monthly meetings with the kindergarten teachers.

Omaha, Nebr. The special supervisors give the work to the students in the city training school.

Atlantic City, N. J. The special supervisors are in touch with the work of the kindergartens; they visit, give assistance, and offer suggestions. The standards of work in the kindergartens are such as to receive the approval of the specialists.

Binghamton, N. Y. The supervisor of music and the physical director pay visits to the kindergartens and report the visits; they call meetings of the kindergarten teachers whenever they so desire.

Ithaca, N. Y. The supervisors of music and art visit the kindergartens once a month; they make annual reports to the superintendent and keep the work up to desired standards.

Pittsburgh, Pa. The supervisors of music visit the kindergartens as they do the grades, giving 20 minutes every two weeks.

Ogden, Utah. The music supervisor holds monthly meetings with the kindergarten teachers and outlines especially the rhythm work for the kindergartens.

Beloit, Wis. The music supervisor comes to the kindergartens once in two weeks for 20 minutes.

Kenosha, Wis. The supervisor of industrial arts holds meetings with the kindergarten teachers.

13. KINDERGARTEN-PRIMARY INSTRUCTION FOR BOTH GROUPS OF TEACHERS.

The problem of establishing an organic relation between the kindergarten and the grades just above is being approached from several directions. Friendly and sympathetic relations between the teachers of the kindergarten and the teachers of the primary grades have long existed, but willing spirits alone are not sufficient. There still remains the task of working out an effective coordination of the two phases of the educational system.

It is recognized that one indispensable step in such coordination is an increased understanding on the part of kindergartners of the work of primary grades, and increased understanding on the part of primary teachers of the work of the kindergarten. Training courses in normal schools are undergoing reorganization of a type that promises well for the teachers of the future, but in the meantime the great mass of present-day teachers are without any regular provision for instruction which will enable them to make adjustments in their respective phases of teaching.

The following summaries of reports from supervisors serve to show how meager and incidental is such instruction.

Instruction in primary work for kindergarten teachers.—In the larger number of cities, provision for the instruction of kindergarten teachers in the work of the primary grades is incidental and occasional.

In some instances the supervisor of kindergartens is also supervisor of primary grades; she holds occasional meetings and arranges for an interchange of visits between the kindergarten teachers and the primary teachers. Sometimes joint meetings are called for the specific purpose of discussing problems that concern the relations of the two groups of teachers. Sometimes informal conferences and personal talks among kindergarten and primary teachers are employed as a means of arriving at a better understanding of one another's aims and methods. In some cases the kindergarten supervisor visits the grades and confers with the primary supervisor in order that the work may be better coordinated.

Interesting efforts are being made in some cities to correlate the kindergarten with the first grade through the course of study. To this end, outlines and lists of stories, games, songs, handwork, etc., done by the children in the kindergarten are passed on to the first-grade teacher at promotion time.

Provision for giving regular instruction in primary work to kindergarten teachers is reported from 19 cities. In Birmingham, Ala., St. Paul, Minn., St. Louis, Mo., Omaha, Nebr., Albany, N. Y., and Dayton, Ohio, this instruction is given in the city normal school during the period of teacher training.

In Los Angeles and Pasadena, Cal., Fort Wayne, Ind., Kansas City, Mo., Butte, Mont., and Bloomfield, N. J., joint meetings of kindergartners and first-grade teachers are held regularly for purposes of instruction.

In Oakland, Cal., Battle Creek and Grand Rapids, Mich., and Kearney, N. J., the supervisor of kindergartens is also in charge of primary grades and gives regular instruction.

In Louisville, Ky., the grade supervisor includes kindergartners in the regular conferences held with first-grade teachers.

In Ithaca and Utica, N. Y., kindergarten teachers having been prepared in the normal school for both phases of work are eligible for positions as first-grade teachers.

Instruction in kindergarten work for grade teachers.—With few exceptions the instruction in kindergarten aims and methods given to grade teachers is incidental.

The means of imparting such instruction are the same as those employed in instructing kindergarten teachers in the work of the

primary grades, namely, occasional joint meetings arranged by the supervisor of kindergarten and primary grades, personal talks among primary teachers and kindergarten teachers, and visits to kindergarten classes.

In several instances the first-grade teachers are given, at the time of promotion, outlines and lists of stories, games, songs, pieces of handwork, etc., done by children in kindergartens. By this means the first-grade teacher gains some idea of what she may build upon.

From 14 cities come reports of provision for giving regular instruction in kindergarten work to primary teachers.

In St. Louis, Mo., Omaha, Nebr., Albany, N. Y., and Dayton, Ohio, such instruction is given in the city normal school during the period of teacher training.

In Los Angeles, Pasadena, and Oakland, Cal., Fort Wayne, Ind., Battle Creek and Grand Rapids, Mich., Bloomfield and Kearney, N. J., the primary or first grade work and the kindergartens are under the charge of one supervisor who gives regular instruction at joint meetings of the two groups of teachers.

In Kansas City, Mo., the kindergarten and primary teachers come together for instruction at the monthly institutes.

In Butte, Mont., the assistant superintendent of schools is a trained kindergartner and holds joint meetings for purposes of instruction.

14. CITIES IN WHICH NO SPECIAL SUPERVISOR OF KINDERGARTENS IS EMPLOYED.

In the tables on pages 12 to 17, inclusive, are listed the cities reporting to the Bureau of Education that no special supervisor of kindergartens is employed.

This characterization, however, must not be taken to mean that the kindergarten teachers in such cities are without supervisory care; it means that the responsibilities ordinarily resting upon a kindergarten supervisor are distributed among other school officers, the superintendent or assistant superintendent, the supervising principal, a committee of kindergarten teachers, or the senior kindergarten teacher in the system.

Administrative details.—In practically all the cities the responsibility for appointing teachers and rating their abilities and for directing the organization of the kindergarten classes falls upon the superintendent, who makes recommendations to the board of education and from them receives sanction for the actions involved. In executing these details the superintendent is assisted by his deputy or district superintendents, supervising principals, and principals of school buildings.

The matter of selecting equipment and supplies for the kindergartens is usually referred by the superintendent to the kindergarten

teachers themselves, in some cases through a committee and in some cases through the senior kindergarten teacher. In Chicago, Cleveland, and Burlington, Iowa, the establishment of a standard equipment automatically takes care of this detail.

Opinions of superintendents as to lack of special supervisor.—In the opinion of the larger number of superintendents (60 per cent) the kindergartens in their cities do *not* suffer appreciably from the lack of special supervision; 36 per cent believe that the kindergartens in their cities are much handicapped for the want of such supervision; 4 per cent make no report on this point. One superintendent of the larger group, having reported that he himself attends to all the necessary details in connection with the care of the kindergartens, adds: "How can I say that the kindergartens suffer without embarrassing my ego?"

Not a few superintendents of the larger group believe that having a special supervisor for kindergartens tends to keep apart the kindergartens and the primary grades and that the kindergartens are more closely integrated with the school system when they receive the same treatment as do the grades. The tendency to oversupervision in all departments of school organization is consciously avoided by several superintendents. The comment in one report is: "Large systems suffer from excessive, as small systems do from inadequate, supervision."

A shortage of funds for school purposes is also a factor in the matter, for it is felt in many cases that the number of kindergarten classes is too small to warrant the employment of a special supervisor, even if one were deemed desirable.

"If we had a kindergarten supervisor we might accept poorer teachers," is an opinion shared by a considerable number of superintendents; as it is, the nonsupervised condition calls for the careful selection of well trained, experienced kindergarten teachers, graduates of accredited training schools. In the absence of a supervisor the teachers form themselves into an association for study and for unification of the work, and in this way keep themselves up to worthy standards and also participate in progressive movements.

Of the smaller group of superintendents who feel that the kindergartens in their cities do suffer, a number believe that having a special supervisor would improve the quality of the work and provide needed leadership for the teachers.

The type of supervisor most desired is one capable of directing the work of the primary grades as well as that of the kindergartens. Inability to meet the expense is the chief obstacle to the employment of a supervisor.

Opinions of kindergarten teachers as to lack of supervisor.—Kindergarten teachers in 60 per cent of the cities reporting offer

no opinion as to whether or not the kindergartens suffer for lack of special supervision. In contrast, superintendents in only 4 per cent of the cities reporting make no response on this phase of the subject.

One reason for silence on the part of many teachers is not far to seek. Teachers are so close to the factors that make for the success of the kindergartens that they lack the perspective necessary to pronounce just judgments upon their own work and that of their fellow teachers. They prefer to say nothing. Superintendents, on the other hand, can view conditions with a detached, impersonal attitude, and are thus enabled to express themselves frankly.

In several cities the opinions of teachers coincide with those of the superintendent to the effect that the number of kindergarten classes is too small to justify the expense of employing a kindergarten supervisor, and that the teachers themselves, formed into an association for discussion and study, can and do keep their work raised to a high standard of excellence. It is admitted in one or two instances that some of the kindergartens suffer, and that there is room for improvement in all of them; but doubt is expressed whether a kindergarten supervisor is what is needed to bring about the desired improvement.

It is believed that certain dangers invariably accompany the advent of a supervisor; for instance, a supervisor who clings to old, formal methods makes serious difficulties for younger, more progressive teachers by obliging them to follow set programs and rules. Again, supervised work tends to take responsibility and initiative from the teachers and places them in the hands of the supervisor; the originality of the teachers is thus suppressed.

Another evil that is feared is the creation of a situation which tends to make the teachers "cater to the supervisor's whims for the sake of good standing." A supervisor would more or less consciously try to bring all the kindergarten classes to an undesirable type and degree of uniformity. It is believed, too, that the kindergartens come into closer contact with the public school system and are regarded less as outsiders if they are not set apart by having a special supervisor.

Among teachers who believe that the kindergaretns in their cities do suffer without special supervision, it is felt that a leader is needed, a leader able to unify, not *uniformize*, the work of the kindergartens, to raise the standards, especially in music, art, and handwork, to check or regulate tendencies on the part of teachers to extravagant forms of experimentation, to stimulate discussion of interesting topics at teachers' meetings, to be the medium of integrating the work of

the kindergarten and the first grade, and to develop or educate the community sentiment in regard to supporting and extending public school kindergartens.

15. OPINIONS OF KINDERGARTEN TEACHERS AS TO THE TYPE OF SUPERVISOR DEEMED DESIRABLE.

A number of teachers seem to be averse to the idea of any actual supervisor of kindergartens whatsoever, but they are willing to lay down counsels of perfection in case one should be employed.

It is felt that in regard to personal qualities, a supervisor should be wise, just, sympathetic, impartial, and inspirational; she should show faith in the teachers; she should not be autocratic, interfering, dictatorial, nor should she seek to force her views and methods upon teachers regardless of conditions and temperaments.

It is believed that professionally a supervisor should be awake to present-day needs and the changing conditions of society; she should be open-minded, progressive, and ready to encourage experimentation, and to assist in arriving at definite conclusions; she should be trained in both liberal and conservative schools of thought and be able to correlate all schools; she should be able to acquaint the teachers with the best current ideas; she should be familiar with the meanings and aims of education as a whole, and should possess ability to arouse community interest in the kindergarten. A number of teachers are of the opinion that the best type of supervision comes from one thoroughly trained and broadly experienced in kindergarten education, experienced also in primary methods, capable of taking charge of kindergartens and primary grades with a view to coordinating the work of the two.

In regard to supervisory activities it is suggested that the supervisor of desirable type is one who would make frequent visits to the kindergartens and give constructive criticism following each visit; who would hold meetings and conferences with the teachers and provide courses of lectures for them; who would arrange exhibits of kindergarten work; who would unify the work of the kindergartens and unite the teachers; who would outline plans of work for the kindergartens and give suggestions as to the problems encountered in the daily activities. A number of teachers feel that they would approve of a supervisor capable not only of telling them how to do better work, but also of showing how by actually teaching a group of children; but other teachers believe that a supervisor should give only general suggestions and leave the working out of details to the individual kindergartners.

16. PRACTICAL SUGGESTIONS FOR NONSUPERVISED SYSTEMS OF KINDERGARTENS.

From several superintendents and teachers come suggestions as to how to secure some of the benefits of kindergarten supervision in the absence of a regularly appointed officer.

In some of the smaller cities in California there is what is called a supervising director, who directs one of the kindergartens and pays supervisory visits to each of the other kindergartens once in two months; she discusses the new and commendable points observed in each kindergarten, and confers with the other teachers concerning program plans. Such a director usually receives $5 a month more than the other kindergartners. The cities adopting the plan find it much better than no supervisor at all.

A suggestion from a teacher in an Iowa city is as follows:

> A helpful kind of supervision would be a kindergarten training teacher who would come several times a year to address the club of kindergartners, bring new ideas and suggestions, and be an adviser to whom the teachers could take their difficulties; one who would visit the kindergartens at these times and offer suggestions for improvement.

From another teacher comes the inquiry as to the practicability of having a State kindergarten supervisor who would travel from place to place, visit the kindergartens, give to the teachers the constructive criticism they need, and from her observations prepare a report to be distributed as a State educational bulletin.

From a superintendent comes the suggestion that the cities along the line of railroads for 100 miles or so cooperate in employing a special supervisor of kindergartens, who could give to each city one day a week or two days in three weeks, or some such arrangement of time. The kindergartens would thus receive the attention necessary to their improvement, and the expense of the supervisor would not bear heavily on any one city.

Another superintendent believes that the emphatic need is for an adjustment of the courses of study. He writes:

> An expert in child psychology and one thoroughly familiar with actual conditions should arrange a kindergarten course to fit the first grade, and a first-grade course to fit the kindergarten. The present interplay is neither normal nor economical.

Where a large system of kindergartens is involved, the plan followed in Los Angeles for one year previous to the appointment of the present supervisor has commendable features.[1] The kindergarten teachers were divided into 11 groups, each group including teachers

[1] See account given by Mrs. Susan M. Dorsey, assistant superintendent of schools, Los Angeles, Cal., in National Education Association Magazine, Nov., 1917.

in adjacent schools for the sake of convenience. These groups had two responsibilities, arranging a system of visits within their own number, and conducting a series of round tables monthly for the entire group. Each group selected one of its own members as visitor for the district and as presiding officer for the round-table meetings. The aims in the visiting were not at supervision in the technical sense of the term, but rather in the direction of arousing consciousness of a common problem, and of extending to all the teachers through the medium of the visits and the round table a knowledge of the varying activities, devices, and materials employed by the members of the group.

17. CONCLUSIONS AND RECOMMENDATIONS.

1. For the sake of preserving the well-being of young children just beginning school life, the supervisors of kindergartens and of primary grades should have a much larger share in planning kindergarten rooms and first-grade rooms than is given them at persent. By room-planning is meant more than the mere arrangement of furniture and disposing of decorations. The location of the room, the placing of windows, making blackboards, cupboards, and lockers low enough for the children's comfort, providing suitable toilet rooms, are all matters which should be referred to the kindergarten specialist at the time that building plans are being prepared.

2. A greater degree of responsibility should be assumed by supervisors for providing gardening experiences for the children, especially where the kindergarten teachers and school principals are lukewarm in the matter. The plans followed in the down-town schools in Cincinnati are full of suggestions for other cities.

3. Since it appears that placing kindergartens under the charge of a nonkindergarten trained primary supervisor serves the purposes chiefly of convenience and economy, it is recommended that one of the senior kindergarten teachers be appointed assistant supervisor and allowed to devote all her time to the kindergartens under the direction of the primary supervisor.

4. The relations between supervisors of special subjects and the kindergarten supervisor and teachers should be those of cooperation and mutual helpfulness. The practice of having special supervisors act as expert advisers while the kindergarten teachers are responsible for the work as carried out by the children is the best form of organization. In this way the kindergarten supervisor is able to protect the children and to maintain a sane balance in kindergarten practice.

5. Kindergarten supervisors should be more mindful of the application of the principle of self-activity in their relations with the

teachers in their charge. To lead rather than to dominate, to provide situations in which the teachers can realize the fullest freedom and can grow in teaching power and ability to ues their own initiative, should be the conscious aim of the supervisor.

6. Adequate provision should be made for giving regular instruction in kindergarten aims and methods to the primary teachers who are already teaching, and for giving regular instruction in primary aims and methods to kindergarten teachers who are already teaching.

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CONTENTS.—Proceedings of associations—Educational history and biography—Current educational conditions—Education and the war—Educational theory and practice—Educational psychology: Child study—Educational tests and measurements—Special methods of instruction—Special subjects of curriculum—Rural education—Secondary education—Teachers: Training and professional status—Higher education—School administration—School management—School architecture—School hygiene and sanitation—Social aspects of education—Child welfare—Moral education—Religious education—Manual and vocational training—Vocational guidance—Agricultural education—Home economics—Commercial education—Civic education—Military training—Reeducation of war invalids—Negro education—Education of blind and deaf—Exceptional children—Education extension—Libraries and reading—Bureau of Education: Recent publications.

NOTE.

The record comprises a general survey in bibliographic form of current educational literature, domestic and foreign, received during the monthly period preceding the date of its publication.

This office can not supply the publications listed in this bulletin, other than those expressly designated as publications of the Bureau of Education. Books, pamphlets, and periodicals here mentioned may ordinarily be obtained from their respective publishers, either directly or through a dealer, or, in the case of an association publication, from the secretary of the issuing organization. Many of them are available for consultation in various public and institutional libraries.

Publications intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

PROCEEDINGS OF ASSOCIATIONS.

1526. College art association of America. Bulletin, No. 4, September 1918. 157 p. plates. 8°. (John Shapley, secretary, Brown University, Providence, R. I.)

Contains: 1. John Pickard: Art's counter offensive, p. 19–24. 2. Duncan Phillips: Art and war, p. 24–37. 3. E. R. Bossange: Technical and general education in the arts, p. 48–58. 4. B. M. Godwin: Preparation of the child for a college course in art, p. 61–69. 5. J. C. Dana: The value of the study of art in our institutions of higher education, p. 69–83. 6. Walter Sargent: The value of art education in colleges, p. 83–88. 7. Lloyd Warren: Taste: its awakening and development, p. 88–94. 8. Edward Robinson: Value of the study of art to the students in colleges and universities, p. 95–102. 9. S. P. Capen: The value of art in a college course, p. 103–10. 10. Alice V. V. Brown: Standardization of art courses, p. 110–14. 11. A. W. Dow: A course in fine arts for candidates for the higher degrees, p. 114–18. 12. E. W. Forbes: The art museum and the teaching of the fine arts, p. 120–29. 13. R. A. Cram: The place of the fine arts in higher education, p. 129–35.

1527. Illinois state teachers' association. Journal of proceedings of the sixty-fourth annual meeting . . . held at Springfield, Ill., December 27–29, 1917. Springfield, Ill., Illinois state journal co., 1918. 200 p. 8°. (Robert C. Moore, secretary, Carlinville, Ill.)

Contains: 1. E. C. Perisho: The school and the state, p. 73–76. 2. F. G. Blair: Governor Coles' contribution to freedom and education in Illinois, p. 76–88. 3. Jeannett Bates: The child labor law, p. 96–101. 4. R. S. Jones: The administration of child labor laws, p. 101–104. 5. H. T. McCrea: Are county institutes meeting the needs of the teachers? p. 104–108. 6. W. W. Charters: Systematic topics, multi-problems and projects, p. 109–14. 7. R. O. Stoops: The use of score cards for judging text books, p. 114–19. 8. Fiske Allen: The training of teachers in service, p. 119–24. 9. I. M. Allen: Dr. Johnston's philosophy of education, p. 126–33. 10. E. S. Jones: Some things to do in community civics, p. 138–41. 11. S. G. Harrod: Responsibility of the college for the preparation of high school teachers, p. 147–54.

1528. National conference committee on standards of colleges and secondary schools. Minutes of the eleventh conference, held at New York, N. Y., March 1, 1918. 20 p. 8°. (F. W. Nicolson, secretary, Wesleyan university, Middletown, Conn.)

Contains: 1. B. E. Young: The abolition of German in the secondary schools, p. 4–7. 2. Definition of educational terms, p. 9–10. 3. Wilson Farrand: Marking systems in secondary schools, p. 12–16. 4. F. W. Nicolson: Academic credit for national service, p. 17–20.

1529. North central association of colleges and secondary schools. Proceedings of the twenty-third annual meeting . . . March 21, 22 and 23, 1918, Hotel La Salle, Chicago, Ill. Pub. by the Association, 1918. 163 p. 8°. (Henry E. Brown, secretary, Kenilworth, Ill.)

Contains: 1. J. H. Newlon: The need of national standards of high school administration, p. 17–22. 2. P. W. L. Cox: Junior high schools—Recommendations of the Commission on unit courses and curricula, p. 22–27. 3. J. E. Stout: Report of Commission on unit courses and curricula, p. 27–32. 4. C. C. Certain: High school library standards, p. 33–77. 5. K. C. Babcock: Methods now being employed by the Commission on institutions of higher education in standardizing colleges, p. 82–92. 6. Commission on institutions of higher education: Standards of accrediting institutions, 1918, p. 92–103. 7. T. F. Holgate: President's address, p. 105–15. 8. D. R. Forgan: The relation of finance to the war, p. 115–25. 9. W. A. Jessup: The war in its relation to the schools, p. 126–32. 10. C. O. Davis: Report of Commission on secondary schools—Directory, etc., [38] p. fol. p. 140.

1530. Pennsylvania. University. Schoolmen's week proceedings, April 11–13, 1918. Philadelphia, Pa. Pub. by the University. 362 p. 8°. (University bulletins, 18th ser., no. 5, pt. 3, June 1918)

Contains: 1. A. D. Yocum: General education as a factor in democracy, p. 25–40. 2. C. H. Judd: Educational measurements—their benefits to teachers and to laymen, p. 40–50. 3. Payson Smith: Uniformity in education—a protest, p. 50–52. 4. G. A. Mirick: Supervision of instruction in city and rural schools, p. 55–58; Discussion, p. 58–61. 5. Harlan Updegraff: Teachers' salaries and the increasing cost of living, p. 61–74. 6. C. C. Green: Economy through cost accounting, p. 74–81. 7. H. O. Dietrich: A comparative study of child progress, p. 82–86. 8. Harlan Updegraff and L. A. King: Report on cooperative work in educational measurements, p. 88–111. 9. Thomas Francis: Measuring the fundamental operations of arithmetic in the Scranton schools, p. 114–22. 10. P. A. Boyer: The Courtis tests in arithmetic in a group of Philadelphia schools, p. 122–31. 11. J. M. Fisher: A study of individual pupils with the aid of Courtis tests in arithmetic, p. 131–37. 12. Katherine E. Moran: The use of Courtis tests in silent reading, p. 137–42. 13. C. H. Judd: Measurement of reading, p. 142–50. 14. E. L. Bowman: Prevocational education in Erie, p. 150–56. 15. W. C. Ash: The work of the Philadelphia evening trades schools, p. 159–66. 16. A. F. Payne: Industrial education for conscripted men, p. 166–69. 17. Ernest Burnham: The preparation of rural teachers, p. 169–85; Discussion, p. 185–88. 18. G. A. Mirick: Supervision of rural schools, p. 188–89;

Discussion, p. 189–93. 19. N. C. Schaeffer: The schools and the war, p. 193–95. 20. G. W. Wheeler: School credit for farm work, p. 196–202. 21. C. W. Hunt: A study in the use of the Courtis arithmetic tests, p. 203–9. 22. C. H. Judd; Measurement and the promotion of pupils, p. 209–16. 23. H. C. Eicher: Pennsylvania's school building problem, p. 216–29; Discussion, p. 229–35. 24. A. L. Hall-Quest: Teaching by supervision, p. 239–45. 25. The relation of general science to more advanced science courses [by] Louise Nichols, p. 248–56; [by] S. L. Shanaman, p. 257–59. 26. C. A. Herrick: Commercial education and the war, p. 269–73. 27. S. G. Nichols: The training of the commercial teacher. The problem and the causes, p. 273–77. 28. A. C. Baugh: The English of oral English, p. 277–83. 29. Ruth Wanger: Vocational guidance and the social sciences, p. 300–304; Discussion, p. 305–7. 30. Alma V. Saurwalt: American history since 1880. How can it be taught adequately without sacrificing things of importance in earlier American history? p. 307–13; Discussion, p. 313–14. 31. H. H. Gage: A syllabus for the first, second and third year of French, p. 317–23. 32. J. F. Woodhull: The project method in the teaching of science, p. 332–37; Discussion, p. 337–42. 33. A. J. Jones: The meaning and scope of educational guidance, p. 343–46. 34. H. A. Vanderslice: A course of study in educational guidance in the small high school, p. 346–51. 35. Ruth Wanger: Vocational guidance at the South Philadelphia high school for girls, p. 352–57.

EDUCATIONAL HISTORY AND BIOGRAPHY.

1531. **Maddox, William Arthur.** The free school idea in Virginia before the civil war; a phase of political and social evolution. New York city, Teachers college, Columbia university, 1918. 225 p. 8°. (Teachers college, Columbia university. Contributions to education, no. 93)

Bibliography: p. 199–217.

1532. **Mead, Arthur Raymond.** The development of free schools in the United States as illustrated by Connecticut and Michigan. New York city, Teachers college, Columbia university, 1918. 236 p. tables. 8°. (Teachers college, Columbia university. Contributions to education, no. 91)

Bibliography on Connecticut: p. 200–202.
Bibliography on Michigan: p. 219–220.

1533. **Quintero, Gregorio Torres.** Education among the ancient Mexicans. Inter-America, 2: 15–21, October 1918.

Study of education among the pre-Columbian Aztecs of the central valley of Mexico.

CURRENT EDUCATIONAL CONDITIONS

UNITED STATES.

1534. **Challman, S. A.** The public schools of Rochester, Minnesota. American school board journal, 57: 29–31, October 1918.

The scope of activities undertaken by the schools of Rochester, Minn., the administration of the schools, etc.

1535. **Chamberlain, Arthur.** Nationalizing education. Sierra educational news, 14: 407–13, September 1918.

A summary of the Pittsburgh meeting of the N. E. A., the National emergency in education; proposed secretaryship in education; increase in teachers' salaries, etc.

1536. **Davidson, Percy E.** Educational reform and the manly virtues. School and society, 8: 361–67, September 28, 1918.

Discusses the criticisms made by Mr. Thomas in School and society for November 24, 1917, against Flexner's Modern school and the doctrine of interest.

1537. Education and economic success. Fortnightly review, n. s. 104: 198–208, 354–66, August, September 1918.

Signed "Fabricius."

Emphasizes the importance of education and scientific training to economic success. Compares educational conditions in England with those in the United States, to the detriment of the former. Gives high praise to our system of education, and quotes freely from statistics published by the Bureau of education.

Second paper of series says that the great characteristics of American education are: Prodigal lavishness, and great practical efficiency. Excerpts from the Mosely and other reports on educational conditions in the United States are included.

1538. A handbook of American private schools; an annual publication. Fourth edition, 1918. Boston, Porter E. Sargent, 1918. 711 p. 12°.

The introductory part of this book contains sections entitled as follows: History of the private school, Military education, College entrance examinations, Modern and experimental schools, The new school movement, Recent development of country day schools, Review of the year in education, Vocational education, War time activities of the schools, Educational reconstruction in England, Recent educational literature, A select classified reading list. The bulk of the work comprises a critical description of schools and summer camps, comparative tables, educational directories, etc.

1539. **Harley, Lewis R.** Why German system of education fails. Pennsylvania gazette, 17: 34–35, October 11, 1918.

After showing the false principle of German education, the author concludes by speaking of the dangers of Prussianism to American schools.

1540. Visit of the British educational mission to the United States, October–December 1918. [New York city, British bureau of information, 1918] 18 p. 8°.

Gives the itinerary of the mission and biographical sketches of the members.

FOREIGN COUNTRIES.

1541. **Anderson, J. T. M.** The education of the New-Canadian; a treatise on Canada's greatest educational problem. London and Toronto, J. M. Dent & sons, ltd., 1918. 271 p. illus. 8°.

1542. **Emerson, Gertrude.** "Bitter learning" in Japan; a study in human documents. Asia, 18: 851–58, October 1918.

To be concluded in the next issue.

The story of *kugakko*, or bitter learning, suffering for an education, which is full of a pathetic romance in Japan.

1543. **Lobenstine, E. C., *ed.*** The China mission year book, 1917 (eighth annual issue) ed. by the China continuation committee, under the direction of an editorial committee. Shanghai, The Christian literature society for China, 1917. 588 p. 12°.

Part V, General and religious education, contains chapters on the following subjects: Some educational developments in the past year, Higher education of women, Supervision of education in Szechwan, Progress of theological education in China, Religious condition of students in mission schools, Chinese returned students. Chapter XLIV is on Medical education in China, 1916.

1544. **Maugain, Gabriel.** Les professeurs italiens et la science allemande. I. Revue internationale de l'enseignement, 38: 241–53, July–August 1918.

To be continued.

Takes up the subject of the intellectual influence of Germany in Italy. This article discusses the German invasion in Italian education.

1545. **Sissons, C. B.** Bi-lingual schools in Canada. London, Toronto, J. M. Dent & sons, ltd., 1917. 242 p. 12°.

EDUCATION AND THE WAR.

1546. **Cutler, Frances W.** College women in the nation's service. Journal of the Association of collegiate alumnae, 12: 7–11, October 1918.

1547. **Ettinger, William L.** The schools and the war. School, 30: 39, September 26, 1918.

An appeal for the cultivation of the highest idealism and to make the current events the core of instruction.

1548. **Gage, Nina D.** Organization of class work and student life at the Vassar training camp. American journal of nursing, 19: 18–22, October 1918.

Work at the "Nursing Plattsburgh."

1549. **Heffron, John L.** A report of a conference of the surgeon general with the deans of medical schools concerning medical education and the war, under the auspices of the Council on education of the American medical association. Journal of sociologic medicine, 19: 224–28, August 1918.

This conference, held in Chicago June 11, 1918, was attended by the representatives of about 70 medical schools.

1550. **James, Edmund Janes.** The college man and the war. Urbana, War committee of the University of Illinois [1918]. 10 p. 8°. (University of Illinois bulletin vol. XV, no. 50, August 12, 1918)

Commencement address, June 14, 1918.

1551. **Phillips, D. E.** The war and university reform. School and society, 8: 421–25, October 12, 1918.

Also in American education, 22: 60–64, October 1918.

1552. **Sanford, C. M.** War and the teacher. School news and practical educator, 32: 49–51, October 1918.

The problems of the teacher during these stirring war times.

1553. **Smith, Theodore Clarke.** The duty of the history teacher in forming public opinion during the war. Historical outlook (continuing History teacher's magazine) 9: 379–80, October 1918.

1554. **Swindler, R. Earl.** Study and teaching of the world war. Teacher's journal, 18: 149–55, October 1918.

Continued from September journal and to be concluded next month.
Outlines a plan for teaching the world war.

1555. **Thwing, Charles F.** The colleges as war camps. Independent, 96: 12, 28, October 5, 1918.

Discusses the transformation in higher education that is now going on; the students' army training corps.

1556. **Wall, A. Dorothy.** What are we going to do with the war in the kindergarten? Kindergarten and first grade, 3: 320–22, October 1918.

A unit of work developed through the project method.

EDUCATIONAL THEORY AND PRACTICE.

1557. **Bobbitt, Franklin.** The curriculum. Boston, New York [etc.] Houghton Mifflin company [1918] 295 p. diagrs. 12°.

1558. **Cameron, Edward H.** Formal discipline past and present. Educational review, 56: 133–48, September 1918.

1559. **Lodge, *Sir* Oliver.** Humanistic science. Fortnightly review, n. s. 104: 209–17, August 1918.

Says that "in real education there should be no conflict or partition between science and letters."

1560. Lott, Henry C. The relation of education to the new democracy. American schoolmaster, 11: 301–11, September 15, 1918.

1561. Moran, Francis T. Education and democracy. Catholic educational review, 16: 132–38, September 1918.
Address delivered before the Catholic educational association, San Francisco, July 1918.

1562. Washburne, Carleton W. The formal discipline problem: three lines of attack. Sierra educational news, 14: 392–95, September 1918.

EDUCATIONAL PSYCHOLOGY: CHILD STUDY.

1563. Armentrout, W. D. Outline of the stages in the child's mental development. Education, 39: 90–101, October 1918.

1564. Burnham, William H. Astigmatism and brain work. [Worcester, Mass., 1918] p. 225–38. 8°.
Reprinted from the Pedagogical seminary, 25: 225–38, September 1918.

1565. Pyle, W. H. The relation of mental to physical development. Journal of delinquency, 3: 210–12, September 1918.
Study based on a recent experimental study of the school children of a Missouri county.

EDUCATIONAL TESTS AND MEASUREMENTS.

1566. Hotz, Henry Gustave. First year algebra scales. New York city, Teachers college, Columbia university, 1918. 87 p. tables, diagrs. 8°. (Teachers college, Columbia university. Contributions to education, no. 90)

1567. Irwin, H. N. A preliminary attempt to devise a test of the ability of high school pupils in the mental manipulation of space relations. School review, 26: 600–5, October 1918.
To be continued. Discusses space perception and visual imagery.

1568. Proctor, William M. The use of intelligence tests in the educational guidance of high-school pupils. School and society, 8: 473–78, 502–9, October 19, 26, 1918.

1569. Reavis, W. C., *and* Aikin, N. J. The use of a score card in measuring handwriting. Elementary school journal, 19: 36–40, September 1918.
Says that the use of the score card in St. Louis indicates that it is more accurate than the scale in general scoring, with "the added advantage of providing specific suggestions for remedial instruction for those pupils for whom general practice does not produce reasonable and appreciable results."

1570. Towne, Charles F. Making a scale for the measurement of English composition. Elementary school journal, 19: 41–53, September 1918.
Discusses a plan put into operation by the schools of Providence, R. I.

SPECIAL METHODS OF INSTRUCTION.

1571. Cather, Katherine Dunlap. Educating by story-telling; showing the value of story-telling as an educational tool for the use of all workers with children. Yonkers-on-Hudson, N. Y., World book company, 1918. 396 p. 8°. (Play school series, ed. by C. W. Hetherington)

1572. Windoes, Ralph F. Visual instruction in the United States. Manual training magazine, 20: 40–44, October 1918.
Shows what the state departments, the federal government, colleges and universities, and commercial organizations are doing in furnishing lantern slides, etc., for educational purposes.

SPECIAL SUBJECTS OF CURRICULUM.

ENGLISH AND COMPOSITION.

1573. **Bair, F. H.** A new type of class book individualizing the teaching of English in secondary schools. English journal, 7: 433–38, September 1918.

1574. **Smith, H. P.** Technical points in elementary English. Elementary school journal, 19: 54–68, September 1918.

Presents statistics of a large number of courses of study for elementary schools "to determine the different points emphasized and the years of the course in which attention is focused upon a given point."

MODERN LANGUAGES.

1575. **Dunlap, Knight.** Value of German language assailed. Oklahoma school herald, 26: 285–87, October 1918.

Reprinted by permission of the author and the New York Times.

Shows how the value of the German language has been overestimated, claims that it has no cultural value, and thinks that German should be offered in the high school, but not required.

1576. **Gay, P.-H.** Enseignement grammatical et enseignement empirique de la langue. Revue pédagogique, 72: 393–410, June 1918.

Concludes a discussion of the grammatical and empirical methods of language teaching by suggesting a compromise between them which will avoid the extremes of both. Refers principally to the teaching of French.

1577. **Goblot, Germaine.** La guerre et l'enseignement des langues vivantes en Allemagne. Revue pédagogique, 72: 411–31, June 1918.

Quotes from German periodicals some recent opinions of various German educators regarding the present and future teaching of English and French in Germany. The writer concludes that both languages will continue to be taught in Germany, but as an instrument of nationalism, with less impartiality than before the war.

1578. **Gordy, H. Miles.** The German language in our schools. Educational review, 56: 257–63, October 1918.

Advocates the abandonment of the study of the German language in our schools, and the substitution for it of French.

ANCIENT LANGUAGES.

1579. **Green, T. Jennie.** A systematic study of English derivatives in connection with Latin in the high schools. Classical journal, 14: 39–47, October 1918.

Says that a systematic study of derivatives should begin with the first lessons of the first year.

1580. **Litchfield, Henry W.** Latin and the liberal college. Classical journal, 14: 6–25, October 1918.

Changes suggested for undergraduate courses in Latin. Presents a program for studies to be pursued by an intending teacher, etc.

1581. **MacKenzie, Flora.** Socializing Latin. Classical journal, 14: 56–62, October 1918.

"How to make Latin pleasing and attractive to high school pupils."

1582. **Moore, Frank G.** Our common Latin heritage. Educational review, 56: 230–54, October 1918.

1583. Perkins, Albert S. Latin as a utility. Educational review, 56: 117–32, September 1918.

A plea for emphasis upon English vocabulary building and consequently for a wider study of Latin in the secondary school, in vocational and general classes.

1584. Snedden, David. Liberal education without Latin. School review, 26: 576–99, October 1918.

Against the classics. Emphasizes the study of science, the fine arts, English, foreign languages, etc. Speaks of "a declaration of independence from the grip of the dead hand of Latin."

1585. Ullman, B. L. Latin in place of German. School and society, 8: 337–41, September 21, 1918.

Results of a questionnaire sent to teachers in schools and colleges of all types to ascertain the actual conditions with respect to the teaching of Latin and German.

GEOGRAPHY.

1586. Nolan, Ona I. Ways of raising geography teaching above the commonplace. Journal of geography, 17: 41–49, October 1918.

The writer tries to keep geography up to date by (1) Utilizing the experiences of the children, (2) Training powers of observation, (3) Choice of reading, (4) Use of newspaper clippings, (5) Pupil-teacher work, and (6) Use of maps and other materials.

SCIENCE.

1587. Kirkwood, J. E. Opportunity and obligation in botanical teaching. School science and mathematics, 18: 579–87, October 1918.

1588. Packard, John C. Science teaching. The college and the school. Journal of education, 88: 311–12, October 3, 1918.

"Some of the most suggestive sentences in a very remarkable paper read in February 1918."

PENMANSHIP.

1589. Sawyier, Tom. Manual of fundamentals in the teaching of handwriting in the public schools, prepared . . . under the direction of Francis B. Pearson, superintendent of public instruction. Columbus, O., The F. J. Heer printing co., 1918. 72 p. incl. front. (port.) illus. 8°.

MUSIC.

1590. Chevais, Maurice. La musique à l'école de demain. Grande revue, 22: 121–34, July 1918.

1591. Clark, Frances Elliott. Music in education. Normal instructor and primary plans, 27: 58, 69, 71, October 1918.

The larger part of a paper read at the General federation of women's clubs, Hot Springs, Ark.

Shows how music can serve education.

RURAL EDUCATION.

1592. Joffe, Eva. Rural school attendance in Alabama. Child labor bulletin, 7: 101–25, August 1918.

Results of an investigation undertaken by the National child labor committee, to ascertain the number and causes of absences among the school children of Alabama.

1593. Oklahoma. Dept. of education. Rural centralized, graded and model schools. Prepared by E. A. Duke, rural school supervisor, 1918. Issued by R. H. Wilson, state superintendent, Oklahoma. [Oklahoma City, 1918] 89 p. illus., diagrs. 8°.

1594. ———. School survey suggestion; Alfalfa County, Grady County, Wagoner County, 1918. Prepared by E. A. Duke, rural school supervisor. Issued by R. H. Wilson, state superintendent of public instruction, Oklahoma. [Oklahoma City, 1918] 130 p. illus., maps. 8°.

SECONDARY EDUCATION.

1595. **Farrand, Wilson.** Readjustments in secondary education. Educational review, 56: 192–98, October 1918.

Discusses the establishment of definite standards of attainment, and relating the processes of formal education more directly to the activities of life.

1596. The high school teacher from the viewpoint of the student. Educational foundations, 30: 31–36, September 1918.

By a high school student.

Gives some opinions and criticisms of teachers by high school pupils.

1597. Secondary education in Latin America. Bulletin of the Pan American union, 47: 276–82, August 1918.

A general sketch of the present status of secondary education in Latin American countries.

1598. **Strickland, V. L.** The junior high school. Kansas teacher, 7: 7–9, October 1918.

1599. **Thomas, P.-Félix.** Notes sur l'enseignement secondaire. Revue de Paris, 25: 531–55, 626–45, June 1, August 1, 1918.

CONTENTS.—I. Caractères de l'enseignement secondaire.—II. L'administration du collège.—III. Les professeurs.—IV. Les répétiteurs.—V. Les élèves.—VI. L'inspection générale.—VII. Rapports des trois enseignements.

TEACHERS: TRAINING AND PROFESSIONAL STATUS.

1600. **Bradley, J. H.** A study of the relative importance of the qualities of a teacher and her teaching in their relation to general merit. Educational administration and supervision, 4: 358–63, September 1918.

Gives a scale to guide in the rating of teachers.

1601. **Burk, Frederic,** *and* **Washburne, Carleton W.** The reorganization of normal school professional courses. School and society, 8: 382–85, September 28, 1918.

The essential characteristics of the good teacher and the reorganization of normal courses so as to produce such teachers.

1602. **Burnham, Ernest.** Normal schools and rural teachers. American schoolmaster, 11: 289–96, September 15, 1918.

Deals with some specific problems in rural-teacher preparation.

1603. **Curtis, Henry S.** Continuation schools for teachers. Educational review, 56: 108–16, September 1918.

Gives examples of several continuation schools. Says "there should be some requirement in each State that every elementary teacher, within 10 or 12 years after she begins to teach, should secure an A. B. degree, that every high-school teacher should secure a Ph. D."

1604. ———. Recreation for teachers; or, The teacher's leisure time. New York, The Macmillan company, 1918. xvi, 288 p. plates. 12°. (Home and school series.)

Bibliography: p. 281–83.

1605. **Ennis, Isabel A.** Causes of the present shortage of teachers. School and society, 8: 461–63, October 19, 1918.

Says low salaries will cause a serious dearth of teachers both now and after the war. Suggests remedies.

1606. **Furst, Clyde.** Insurance and annuities for college teachers. Educational review, 56: 215–29, October 1918.

Work of the Carnegie foundation and the Teachers insurance and annuity association of America.

1607. **Gt. Brit.** Departmental committee for enquiring into the principles which should determine the fixing of salaries for teachers in secondary and technical schools, schools of art, training colleges, and other institutions for higher education (other than university institutions). Report. Vol. I. London, H. M. Stationery off., 1918. 56 p. tables. 4°.

1608. **McIntyre, Clara Frances.** A venture in statistics. Journal of the Association of collegiate alumnae, 12: 1–7, October 1918.

Suggested by Elizabeth H. Haight's article on Pleasant possibles in lady professors published in the Journal of the Association of collegiate alumnae, September 1917. Results of investigations as to number and rank of women professors in coeducational universities and women's colleges. Says that more teaching positions are open to women in coeducational institutions than in women's colleges, and the tendency is toward a larger and fairer recognition of women's work.

1609. **National union of teachers.** Report for 1918 and List of members for the year 1917. London, The "Schoolmaster" publishing co., ltd. [1918] cxxiii, 644 p. 8°.

HIGHER EDUCATION.

1610. **Auerbach, Joseph S.** The university graduate of to-day. North American review, 208: 597–610, October 1918.

Portion of the commencement day address delivered at George Washington university, June, 1918. Discusses the university and idealism; attitude of the student towards life, etc.

1611. **Burling, Lancaster D.** The elective system and a table d'hote meal. School and society, 8: 402–6, October 5, 1918.

Read before the section of education, American association for the advancement of science, Pittsburgh, December 1917.

1612. **Caullery, Maurice.** Les universités américaines et la société. Revue internationale de l'enseignement, 38: 254–64, July–August 1918.

From M. Caullery's book, Les universités et la vie scientifique aux États-Unis. Paris, A. Colin, 1918.

Speaks of the manner in which American state universities and private universities supplement each other, of the loyalty of their alumni, and other supporters, etc.

1613. Demos and academe. Unpopular review, 10: 393–404, October–December 1918.

1614. **Lamy, Étienne.** L'université de Louvain. Revue des deux mondes, 47: 5–33, September 1, 1918.

1615. **Universities bureau of the British empire.** The universities of the United Kingdom of Great Britain and Ireland, a handbook. London, H. M. Stationery office, 1918. 64 p. 8°. ([Gt. Brit.] Board of education. Educational pamphlets, no. 33)

SCHOOL ADMINISTRATION.

1616. **Byrne, Lee.** The apportionment of funds in a combined city-and-county school system. American school board journal, 57: 35–36, 77, October 1918.

1617. **California. State board of education.** Committee of twenty-one on reorganization of public school system. Report of sub-committee on school administration. Sierra educational news, 14: 455–60, October 1918.

Alexis F. Lange, University of California, chairman of sub-committee.

1618. **Childs, H. G.** Reorganization in the grammar grades of Indiana public schools. Educator-journal, 19: 7–16, September 1918.

Comparison of the standards of the departmental school and the junior high school, cost comparisons, etc.

1619. **Deffenbaugh, W. S.** Recent improvements in city school administration. American school board journal, 57: 23–24, October 1918.

The present paper constituted the basis of an address before the Department of school administration, National education association, Pittsburgh, Pa., July 2, 1918.

1620. **Greeson, William A.** The school census and its use in school administration. Elementary school journal, 19: 14–23, September 1918.

Says that it is our duty "to so build up a curriculum for the seventh, eighth, and ninth grades that the child who leaves the school at the end of the ninth grade . . . will have some definite preparation for life while at the same time boys and girls who go on to the senior high school will have a good . . . preparation for the higher work."

1621. **Spaulding, Frank E.** Cooperation in school administration. School review, 26: 561–75, October 1918.

Emphasizes the necessity of securing a spirit of objective cooperation. Describes the methods in vogue in Chicago, New York, Boston, Los Angeles, Minneapolis, etc.

1622. **Williamson, I. L.** The relationship between boards of education and superintendents. American school board journal, 57: 31–32, October 1918.

From the superintendent's standpoint.

SCHOOL MANAGEMENT.

1623. **Gray, William S.** The work of elementary school principals. Elementary school journal, 19: 24–35, September 1918.

Says that "the most important single phase of the principal's work relates to the supervision and improvement of classroom teaching. Two methods are followed by progressive principals in evaluating classroom instruction: the first involves the measurement of the results of teaching and the second includes the observation and criticism of the methods employed by the teacher."

1624. **Hall-Quest, Alfred Lawrence.** The textbook; how to use and judge it. New York, The Macmillan company, 1918. xiv, 265 p. tables, forms, diagrs. 12°.

"References" at the end of each chapter.

1625. An individualist on discipline. Unpopular review, 10: 285–300, October-December 1918.

1626. **Kruse, Paul J.** The overlapping of attainments in certain sixth, seventh, and eighth grades. New York city, Teachers college, Columbia university, 1918. 91 p. diagrs. 8°. (Teachers college, Columbia university. Contributions to education, no. 92)

1627. **Lee, Joseph B.** Breaking the lock step. Educational review, 56: 149–57, September 1918.

Methods of achieving acceleration in public schools of New York city. Value of early recognition of bright pupils in high schools.

1628. **Washburne, Carleton W.** Breaking the lock step in our schools. School and society, 8: 391–402, October 5, 1918.

The meaning of individual instruction, plans that have been tried, and administrative problems to be met.

1629. **Young, Walter H.** School discipline. Education, 39: 73–78, October 1918.

Says that teaching personality, coupled with right ideals, is the greatest factor in securing discipline.

SCHOOL ARCHITECTURE.

1630. **Patterson, Herbert L.** Economy in schoolhouse construction. American school board journal, 57: 33–34, October 1918.

This paper was read before the National association of school accounting officers at Rochester, N. Y., May 22, 1918. The author has been engineer in charge of schoolhouse construction for the Boston Schoolhouse commission during the past ten years.

SCHOOL HYGIENE AND SANITATION.

1631. **Ayres, May.** Healthful schools; how to build, equip, and maintain them, by May Ayres . . . Jesse F. Williams . . . and Thomas D. Wood . . . Boston, New York [etc.] Houghton Mifflin company [1918] xii, 292 p. front., plates, plans. 12°. (Riverside textbooks in education, ed. by E. P. Cubberley)

Selected references at end of each chapter.

Sets forth what the authors feel a school administrator needs to know in order to safeguard the health of the children under his care.

1632. **Fidler, Thurba.** School lunches. Rural school messenger, 8: 8–15, September 1918.

A plan for a lunch box campaign in which the whole school and neighborhood may participate.

SOCIAL ASPECTS OF EDUCATION.

1633. **Kerby, C. Edith.** Wage earning school children in Detroit and Grand Rapids. Child labor bulletin, 7: 137–45, August 1918.

A study based on the findings of an investigation carried on in the winter of 1917–18 by the National Child labor committee for the Michigan child welfare commission.

Deals with age, occupations, hours of labor, compensation, etc.

1634. **McFee, *Mrs.* Inez Nellie.** The teacher, the school and the community. New York, Cincinnati [etc.] American book company [1918] 256 p. illus. (incl. plan) 12°.

1635. **Meigs, Grace L.** The children's year campaign. Chicago, American medical association, 1918. 11 p. 8°.

Reprinted from the Journal of the American medical association, vol. 71, pages 243–46, July 27, 1918.

Read before the section on diseases of children at the sixty-ninth annual session of the American medical association, Chicago, June 1918.

1636. **Smith, Walter R.** A program for socializing education. Educational review, 56: 199–214, October 1918.

Discusses the demands for a class cooperation between the schools and social welfare agencies.

1637. **Wilson, H. B.** Socializing the school. Sierra educational news, 14: 389–91, September 1918.

CHILD WELFARE.

1638. **Alden, Percy.** The state and the child. Contemporary review, 114: 237–53, September 1918.

Importance of the child as a national asset. Welfare and education of children in England.

1639. **Gt. Brit. Local government board. Intelligence dept.** Infant welfare in Germany during the war. London, H. M. Stationery office, 1918. 37 p. tables. 8°.

1640. **Slattery, Margaret.** The second line of defense; a plea for the men and women of to-morrow. New York, Chicago, Fleming H. Revell company [1918] 189 p. 12°.

The second line consists of the youth who remain, whose training is now in the hands of parents, teachers, churches, and employers. Makes a vigorous plea for the spiritual care and training of youth, calling parents and others to their duties.

MORAL EDUCATION.

1641. **Engleman, James Ozro.** Moral education in school and home. Chicago, New York [etc.] B. H. Sanborn & co., 1918. 314 p. 12°.

1642. **Ling, Ping.** Moral training of school children in war time. Pedagogical seminary, 25: 276–302, September 1918.

Discusses the ethical values of war from an educational point of view, and particularly those object lessons which are exerting a profound influence on the character and inner life of the children upon whose education and training the future of the world depends.

RELIGIOUS EDUCATION.

1643. **Athearn, Walter S.** The organization of religious education within the community. Religious education, 13: 314–27, October 1918.

Paper read before the International Sunday school convention, Buffalo, N. Y., June 24, 1918. It covers the ground of the author's paper at the convention of the Religious education association in New York on March 5, 1918.

MANUAL AND VOCATIONAL TRAINING.

1644. **Blumenthal, William R.** High school students' part-time employment that pays. Colorado school journal, 34: 17–19, September 1918.

Vocational facts about the East Denver high school for the school year 1917–18.

1645. **Levitas, Arnold.** The teaching of printing in the high school. Industrial-arts magazine, 7: 336–39, September 1918.

Aims, methods of teaching, the course of study, equipment, and the product.

1646. **Mays, Arthur B.** Manual training and vocational education. Manual training magazine, 20: 37–39, October 1918.

A plea for manual training. Gives a few simple facts to show that there is no inherent cause for antagonism between manual training and vocational education.

1647. **National association of corporation schools.** Advance copy . . . sixth annual report . . . 1918. 6 v. 8°.

Report of committee on public education, 26 p. Report of committee on methods of instruction, 34 p. Report of committee on retail salesmanship, 20 p. Report of committee on executive training, 23 p. Report of committee on health education, 33 p. Report of committee on unskilled and semi-skilled labor, 23 p.

1648. Office training at the R. H. Macy department store. National association of corporation schools bulletin, 5: 459–65, October 1918.

A description of the instruction given and the philosophy which is back of the training.

1649. **U. S. Federal board for vocational education.** Emergency war training for oxy-acetylene welders. June, 1918. Washington, Government printing office, 1918. 86 p. illus. plates. 8°. (Bulletin no. 11)

1650. ———. Emergency war training for radio mechanics and radio operators. September, 1918. Washington, Government printing office, 1918. 75 p. 8°. (Bulletin no. 16)

VOCATIONAL GUIDANCE.

1651. **Cohen, I. David.** Vocational and educational guidance in the school. Educational foundations, 30: 13–19, September 1918.

Some suggestions and a plan for educational and vocational guidance.

1652. **King, Charles A.** Vocational guidance: Part I. Educational administration and supervision, 4: 343–50, September 1918.

AGRICULTURAL EDUCATION.

1653. **Caswell, Lilley B.** Brief history of the Massachusetts agricultural college, semicentennial, 1917. Springfield, Mass., The F. A. Bassette co., printers [1917] 72 p. plates. 8°.

1654. **Chauveau, *Dr.*** L'enseignement professionnel et public de l'agriculture. Nouvelle revue (Paris) 36: 114–26, July 15, 1918.

1655. **Ullrich, F. T.** The farmer and agricultural instruction in the high school. Wisconsin journal of education, 50: 194–98, September 1918.

Discusses the lack of interest among farmers in agricultural instruction in the high schools, and suggests some ways and means for overcoming the apathy and indifference of the farmers.

HOME ECONOMICS.

1656. **Bradshaw, Grace.** The age for teaching housecraft in secondary schools. Journal of education (London) 50: 528–30, September 1918.

1657. **Taber, C. W.** The business of the household. Philadelphia and London, J. B. Lippincott company [1918] 438 p. illus. 8°. (Lippincott's home manuals, ed. by B. R. Andrews)

Higher life and cultural wants in the family budget: p. 358–79.

COMMERCIAL EDUCATION.

1658. **Stevens, Bertha.** Private commercial schools, Manhattan and the Bronx. [New York, The Public education association of the city of New York] 1918. 144 p. diagrs. 8°.

Report of the Committee to investigate private commercial schools.

CIVIC EDUCATION.

1659. **Alabama. Dept. of education.** Handbook of patriotic instruction for use in the schools of Alabama. Issued by the State department of education. Montgomery, Ala., Brown printing co., 1918. 151 p. diagr. 8°.

1660. **Cohen, I. David.** Teaching patriotism in the schools. Education, 39: 65–72, October 1918.

1661. **Libby, M. F.** Suggestions for the organization of a state for patriotic education, based upon experience in Colorado. Issued by the National security league . . . New York city, 1918. 54 p. 8°. (Patriotism through education series)

1662. **Ringdahl, M. Robert.** High school course in citizenship. School education, 38: 3–6, October 1918.

The content of a course in citizenship for the high schools.

MILITARY TRAINING.

1663. Courses in psychology for the students' army training corps. Psychological bulletin, 15: 129–36, April 1918.

Report of a sub-committee of the Research council, presenting suggestions and recommendations with respect to the content of the following three courses on the psychology of war for prospective officers: I. The study of human action. II. Educational psychology. III. The psychology of reasoning.

1664. **Hitch, A. M.** Military training in secondary schools. Mind and body, 25: 211–17, September 1918.

Read before the National association of secondary school principals, Atlantic City, February 26, 1918.

Does not approve of military training in the high schools.

1665. **Ling, Ping.** Military training in the public schools. Pedagogical seminary, 25: 251–75, September 1918.

Discusses first, laws and practices of military training in different school systems, and second, military drill versus broad physical education of semi-military character.

REEDUCATION OF WAR INVALIDS.

1666. **Duffy, Frank.** The re-education of our returning soldiers after the war. Educator-journal, 19: 71–75, October 1918.

Read before the National education association at Pittsburgh, Pa., by the general secretary of the United Brotherhood of carpenters and joiners of America.

1667. **Greener, George C.** Some aspects of rehabilitation work for disabled soldiers. Industrial-arts magazine, 7: 325–30, September 1918. illus.

Speaks particularly of conditions in Canada.

1668. **Morgan, Barbara S.** The returning soldier. North American review, 208: 524–35, October 1918.

Rehabilitation of the disabled soldier. Describes the machinery of reconstruction.

NEGRO EDUCATION.

1669. **Davis, Jackson.** County training schools. Southern workman, 47: 481–89, October 1918.

Describes the county training schools for negroes, in the Southern States—under the auspices of the Slater fund and the General education board. Illustrated.

1670. **Favrot, Leo M.** Aims and needs in negro public education in Louisiana. [Baton Rouge, La., 1918] 26 p. 8°. (Department of education, State of Louisiana. Bulletin no. 2, September 1918)

By the state agent of rural schools for negroes under direction of T. H. Harris, state superintendent.

1671. **Noble, Stuart Grayson.** Forty years of the public schools in Mississippi, with special reference to the education of the negro. New York city, Teachers college, Columbia university, 1918. 142 p. tables, diagrs. 8°. (Teachers college, Columbia university. Contributions to education, no. 94)

Bibliography: p. 137–38.

EDUCATION OF BLIND AND DEAF.

1672. American association of instructors of the blind. Twenty-fourth biennial convention, Colorado Springs, Colo., 1918. 75 p. 8°. (N. C. Abbott, secretary, Nebraska City, Nebr.)

Contains: 1. T. S. McAloney: The new education and its relation to and influence upon the education of the blind, p. 5–11. 2. Mabel R. Gillis: Library work for the blind in relation to the schools, p. 12–14. 3. Adelaide M. Carman: Musical training of the blind, p. 14–16. 4. J. T. Hooper: "Does the school curriculum deserve re-examination?" p. 21–23. 5. J. H. Hinemon: What degree of uniformity in courses of study in schools for the blind as respects elementary work is desirable? p. 24–26. 6. E. E. Bramlette: Relation of our courses to courses maintained in classes for seeing pupils in the public schools, p. 27–29. 7. G. F. Oliphant: Principles determining what a blind child shall be set to studying, p. 29–34. 8. Harold Molter: Relative importance of the cultural and the useful subjects as applied to high school programs, p. 35–38. 9. H. R. Chapman: What we ought to know about the child we try to teach, p. 38–42. 10. S. P. Hayes: Standard tests in elementary subjects in schools for the blind, p. 42–54. 11. R. B. Irwin: The public school sight-saving class, p. 58–60. 12. S. M. Green: Training the blind pupil for citizenship, p. 65–68.

1673. Fitzgerald, Edith. Language building in the primary grades. American annals of the deaf, 63: 342–53, September 1918.

Language work with the deaf. Says it should be started in the primary grades.

1674. Wright, John D. Working suggestions. American annals of the deaf, 63: 324–42, September 1918.

Education of the deaf; suggestions to parents and teachers.

EXCEPTIONAL CHILDREN.

1675. Bridgman, Olga L. Some special problems in abnormal adolescent psychology. Boston medical and surgical journal, 179: 505–10, October 17, 1918.

Reprinted from Archives of pediatrics, March 1918.

1676. Claghorn, Kate Holladay. Juvenile delinquency in rural New York. Washington, Government printing office, 1918. 199 p. 8°. (U. S. Children's bureau. Dependent, defective, and delinquent classes, series no. 4. Bureau publication no. 32)

1677. Clark, Willis W. A statistical study of 102 truants. Journal of delinquency, 3: 213–34, September 1918.

Also separately reprinted.

Study of the personal history, heredity, and environment of 102 boys who had been habitual truants prior to their commitment to Whittier State school, Whittier, California. Presents educational tests.

1678. Hastings, George A. Registration of the feeble-minded. Journal of psycho-asthenics, 22: 136–49, March and June 1918.

Writer says there are "four places in which many of the feeble-minded can be detected early in life—the home, school, juvenile court, and the reformatory. Of these the school is the most important so far as registration is concerned." Gives a tentative form of registration.

EDUCATION EXTENSION.

1679. Coxen, James R. The possibilities for evening school industrial classes under the Smith-Hughes act. Industrial-arts magazine, 7: 405–8, November 1918.

Discusses in a general way some of the essential factors involved in the establishment of evening school classes.

1680. **Finney, Ross L.** Importing a German institution. School and home education, 38: 29–31, October 1918.

Argues that the continuation school is a German institution.

1681. **Gt. Brit. Ministry of reconstruction.** Interim report of the Committee on adult education. Industrial and social conditions in relation to adult education. London, H. M. Stationery office, 1918. 32 p. 4°.

1682. **U. S. Federal board for vocational education.** Evening industrial schools. September, 1918. Washington, Government printing office, 1918. 55 p. 8°. (Bulletin no. 18. Trade and industrial series no. 2.)

LIBRARIES AND READING.

1683. **Baldwin, Rachel.** The school and the teaching of patriotism. Public libraries, 23: 361–63, October 1918.

Read before the School libraries section, American library association, Saratoga, July 5, 1918.

Relates to the service of the school library in teaching patriotism.

1684. **Horton, Marion L.** The opportunity of the high school librarian. Western journal of education, 24: 1–2, September 1918.

Read at the California library association meeting, Del Monte, June 19, 1918.

1685. **Hunt, Clara Whitehill.** The child and the book in war times. English journal, 7: 487–96, October 1918.

Read before the Library department of the National education association, at Pittsburgh, Pa., in July 1918.

1686. **Walter, Frank K.** The war and library training. Library journal, 43: 728–32, October 1918.

Read before the professional training section of the American library association at Saratoga, July 5, 1918.

Shows the need of libraries for trained service, and the essential soundness of existing agencies for such training. Salaries must be made higher in order to attract library workers.

BUREAU OF EDUCATION: RECENT PUBLICATIONS.

1687. The fall manual of the United States school garden army. Washington, 1918. 32 p.

1688. Industrial arts in secondary schools in the war emergency. Washington, 1918. 31 p. (Secondary school circular, no. 4, September 1918)

1689. The National council of primary education. Report of the second annual meeting at Kansas City, Mo., February 27, 1917, and the third annual meeting at Atlantic City, N. J., February 26, 1918. Washington, 1918. 35 p. (Bulletin, 1918, no. 26)

1690. An outline of a course of study in gardening. Designed to prepare for supervision of school-directed home gardens under the plan of the United States School garden army. Washington, 1918. 12 p.

1691. The training of teachers of mathematics for the secondary schools of the countries represented in the International commission on the teaching of mathematics; by Raymond Clare Archibald. Washington, 1918. 289 p. (Bulletin, 1917, no. 27)

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1918, No. 40

RECENT STATE LEGISLATION
FOR
PHYSICAL EDUCATION

By

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, D. C., October 1, 1918.

SIR: With the great war has come a quickened appreciation in all nations of the value of physical education. In France a strong central committee has been formed to promote physical education. In England comprehensive and far-reaching provisions for physical education are incorporated in the new education law. In our own country eight States since 1915 have enacted laws providing for State-wide physical education.

It is certain that such legislation will be under consideration in many State legislatures in the immediate future. An analysis of the State laws already enacted and a summary of principles underlying effective State legislation for physical education have been prepared by Dr. Thomas A. Storey, State inspector of physical training, New York, and Dr. W. S. Small, the bureau's specialist in school hygiene and physical education.

I recommend that the manuscript transmitted herewith be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

RECENT STATE LEGISLATION FOR PHYSICAL EDUCATION.

PART I.

CHRONOLOGICAL ANALYSIS OF STATE LEGISLATION FOR PHYSICAL TRAINING.

Since June, 1915, eight States in this country have enacted physical education laws. The order of adoption is as follows: Illinois, June 26, 1915; New York, May 15, 1916; New Jersey, March 23, 1917; Nevada, March 21, 1917; Rhode Island, April 19, 1917; California, May 26, 1917; Maryland, 1918; Delaware, April 10, 1918.

In most instances the initial impulse to these State laws for physical education was interest in military preparedness, and took the form of bills for military training of high-school boys. Investigation and deliberation resulted in convincing the legislators that military training for high-school boys was less valuable even as a measure for military preparedness than a sound system of physical education. With one exception, therefore, all of these States enacted laws providing for compulsory physical education of all of its school children. The Nevada law is for high schools only.

In six other States legislative attention has been given to this question, but as yet legislation has not been enacted. These States are: Massachusetts, Connecticut, Pennsylvania, Nebraska, Ohio, and Colorado.

ILLINOIS.

The Illinois law antedates all the others. It provides for physical training in all of the public schools and in all of the normal schools of the State. Apparently, no special provision has been made in that State for the operation of the law; no appropriation for the development of a program or the publication of a syllabus; and no resources for the employment of State supervisors, inspectors, or other administrators of physical education. It appears that the people of the State are not satisfied with the law, and that efforts have been made to amend it so that it may serve a more useful purpose.

NEW YORK.

The New York law, approved May 15, 1916, and amended at the legislative session of 1918, provides that:

> All male and female pupils, above the age of 8 years, in all elementary and secondary schools of the State, shall receive, as a part of the prescribed courses of instruction therein, such physical training under the direction of the commissioner of education as the regents, after conference with the military training commission, may determine, during periods which shall average at least 20 minutes each day. * * * Similar courses of instruction shall be prescribed and maintained in private schools of the State, and all pupils in such schools above 8 years of age shall attend upon such courses; and if such courses are not so established and maintained in any private school, attendance upon instruction in such school shall not be deemed substantially equivalent to instruction given to children of like ages in the public school or schools of the city or district in which the child resides.

The administration of this law in the State of New York is a function of the regents of the University of the State of New York, that is, of the State department of education. A bureau of physical training has been established as a subdivision of the State military training commission. The State inspector of physical training, the chief officer of this bureau, is required, in accordance with the law, to observe and inspect the work and methods described under the provisions of the education law relating to instruction in physical training. The State law in New York also provides that all public schools in the State employing special teachers of physical training, qualified and duly licensed under the regulations of the regents, may receive financial support from the State to the extent of half the salary of each teacher so employed, provided that half the salary does not exceed $600, and the law further requires that:

> The board of education or trustees of every school district in a city, and every union free school district regularly employing 10 or more teachers, shall employ a teacher or teachers qualified and duly licensed under the regulations of the regents to give such instruction; in every other district of the State they shall require such instruction to be given by the teacher or teachers regularly employed to give instruction in other subjects or by a teacher or teachers qualified and duly licensed under the regulations of the regents.

At the last session of the legislature, 1918, the sum of $60,000 was appropriated for the purpose of enabling the education department of the State to provide for the supervision and special instruction in physical training of teachers of other subjects who are assigned or designated, as required by law, to give instruction in physical training.

Pursuant with the enactments of 1916, the regents of the University of the State of New York and the military training commission of that State produced jointly a State Program and Syllabus of

Physical Training, which in published form covers about 300 printed pages. In this program and syllabus, physical training is interpreted as covering—

(1) Individual health examination and personal health instruction (medical inspection); (2) instruction concerning the care of the body and concerning the important facts of hygiene (recitations in hygiene); and (3) physical exercise as a health habit, including gymnastics, elementary marching and organized supervised play, recreation, and athletics.

For the direction and supervision of the State program there is a force of inspectors, consisting of a State inspector of physical training and nine assistant inspectors.

The program and syllabus now operating in the State of New York require six hours a week in physical training for every pupil who comes under the provision of the law.

NEW JERSEY.

The physical education law of New Jersey requires that:

There shall be established and made a part of the courses of instruction in the public schools of this State (New Jersey) what shall be known as "'a course in physical training." Such a course shall be adapted to the ages and capabilities of the pupils in the several grades and departments and shall include exercises, calisthenics, formation drills, instruction in personal and community health and safety and in correcting and preventing bodily deficiency, and such other features and details as may aid in carrying out these purposes, together with instruction as to the privileges and responsibilities of citizenship, as they relate to community and national welfare, with special reference to developing bodily strength and vigor and producing the highest type of patriotic citizenship; and in addition, for female pupils, instruction in domestic hygiene, first aid, and nursing. To further promote the aims of this course any additional requirements or regulations as to medical inspection of school children may be imposed.

The New Jersey law prescribes that the State commissioner of education, with the approval of the State board of education, shall prepare a course in physical training in compliance with the State law and that experts may be employed to assist him in preparing such courses of instruction and in putting those courses into operation in the public schools of the State.

All children physically fit and capable of doing so are required to take the course in physical training as provided by the State legislature, and such course is made by law a part of the curriculum prescribed for the several grades, and it specifies that the conduct and attainment of the pupils shall be marked as in other courses or subjects, and the standing of the pupil in connection therewith shall form a part of the requirements for promotion or graduation.

The time requirement in New Jersey is "at least 2½ hours in each school week."

The law further requires that all students in the State normal schools of New Jersey shall receive thorough instruction in physical training, and that such instruction shall be provided for all students in attendance at the State summer schools as shall elect to take such instruction.

Instruction in courses of physical training in New Jersey are subject to the general supervision and direction of the commissioner of education, who is authorized by act of the legislature to appoint such expert assistants as in the opinion of the State board of education shall from time to time be necessary to carry out the purposes of the State law.

Local boards of education are authorized to raise money for the support of the local expense attending upon operating the State law of physical training, but no special provision is made by the legislature of the State of New Jersey for State support in local school systems; the general laws governing the distribution of money regarding apportionment to teachers is effective in the case of physical training supervisors and teachers.

The original bill provided the sum of $10,000 for the purpose of enabling the State commissioner of education and the State board of education to carry out its provisions, and made it a law that the sum of $12,000 be provided in the annual appropriation bill for that purpose for the year 1918.

Pursuant with the provisions of this law, the commissioner of education and the State board of education of New Jersey have produced and published a State Program and Syllabus of Physical Education.

NEVADA.

The physical training law for the State of Nevada was approved on March 21, 1917. This act reads in part as follows:

SECTION 1. It is hereby made the duty of all school officers in control of public high schools in the State of Nevada to provide for courses of instruction designed to prepare the pupils for the duties of citizenship, both in time of peace and in time of war. Such instruction shall include:

(1) Physical training designed to secure health, vigor, and physical soundness of the pupil; (2) instruction relative to the duties of citizens in the service of their country. It shall be the aim of such instruction to inculcate a love of country and a disposition to serve the country effectively and loyally.

SEC. 2. All boards of education or boards of school trustees of county or district high schools offering a four years' high-school course are hereby empowered to employ teachers of physical training who shall devote all or part of their time to physical instruction for both boys and girls.

SEC. 3. In order to assist in the payment of salaries of said physical training instructors, there shall be levied on the passage of this act an ad valorem tax of 5 mills on the $100 of assessed valuation of all the taxable property of the State.

The superintendent of education for the State of Nevada has issued a program and syllabus for physical training, pursuant with the provisions of this law.

This Nevada law has the advantage of providing an assured income through its ad valorem tax for the assistance of the various high schools and the payment of salaries of their teachers of physical training. It apparently does not provide any administrative machinery whereby the State superintendent of public instruction may more effectively direct, supervise, and inspect the operation of the State Program of Physical Education. The law unfortunately leaves out of consideration the elementary schools of the State, in which physical training is even more important than in secondary schools. This deficiency is met in part at least through the authority of the State department of education, which has made physical training a requirement in the elementary schools of the State.

RHODE ISLAND.

On April 19, 1917, the governor of the State of Rhode Island approved a law to provide physical training for school children, which reads as follows:

> All children above the age of 8 years, attending public schools or such other schools as are managed and controlled by the State, shall receive therein instruction and the practice in physical training under such regulations as the State board of education may prescribe or approve during periods which shall average at least 20 minutes in each school day. No private school or private instruction shall be approved by any school committee * * * as substantially equivalent to that required by law of a child attending a public school in the same city and town unless instruction and practice in physical training similar to that required in the public school shall be given.
>
> For the purpose of preparing and introducing such course of instruction, the sum of $500, or such sum thereof as may be necessary, is hereby appropriated.

Pursuant with this act of the legislature the State board of education has issued a syllabus for physical education in the schools of Rhode Island.

This syllabus is concerned with (1) the provision of the health and sanitary environment of pupils; (2) a personal health examination and instruction for each pupil at least once a year by a physician and specialist and daily inspection by the parent and teacher; (3) class instruction concerning the important facts of physiology and hygiene for all children and all grades; (4) exercises including such motor activities as marching, gymnastics, and supervised play and recreation.

The general plan and syllabus of physical education for the schools of Rhode Island cover 110 printed pages.

There seems to have been no provision made in this law for the expense of enforcing this requirement in physical education by the

board of education in the State of Rhode Island; no provision for State support of local school systems or for the employment of special teachers; and no provision for administrative machinery for supervision, direction, or inspection of the operation of the law. Unless some such support is given, the probabilities are that the law will not be particularly productive in Rhode Island.

The physical education law will be codified with other laws dealing with provisions for the safety and health of school children. The law is mandatory, has been put into effect, and is being complied with throughout the State. It is to be regretted that a section of the original bill carrying an annual appropriation for special State supervision and inspection was not enacted into law. A State supervisor devoting full time to supervision and inspection could do much to accelerate progress.

CALIFORNIA.

On May 26, 1917, an act providing for physical education became a law in the State of California.

This law provides that the school authorities in the public schools of the State, elementary and secondary, shall prescribe suitable courses of physical education for all pupils, except such as may be excused from such training on account of physical disability.

The California law makes it a duty of the superintendent of schools in every county and city, and of every board of education, board of school trustees, and high-school board, to enforce the courses of physical education prescribed by the proper authority, and to require that such physical education be given in the schools under their jurisdiction or control.

In the elementary schools the time requirement in California shall "average 20 minutes in each school day," and in the secondary schools "at least two hours each week while that school is in session."

This law requires that, if the number of pupils in a given school system is sufficient, there shall be employed a competent supervisor or such special teachers of physical education as may be necessary. The enactment further specifies that the State board of education shall require a course in physical training in all the normal schools of the State and provides that the State board of education shall prescribe a course in physical education for such schools and shall make the completion of such course a requirement for graduation.

Under this law, it is the duty of the State board of education—

(1) To adopt such rules and regulations as it may deem necessary and proper to secure the establishment of courses in physical education in the elementary and secondary schools in accordance with the provisions of this act; (2) to appoint a State supervisor of physical education * * * ; (3) to compile, or cause to be compiled or printed, a manual in physical education for distribution to teachers in the public schools of the State.

The sum of $10,000 was appropriated for the purpose of carrying out the provisions of the California law.

The preliminary program indicates that the State supervisor will produce for that State a thorough and carefully developed curriculum. The present emphasis in California seems to be directed toward the training of teachers, which is without doubt the most important factor in the successful development of a State-wide program of physical education.

The chief handicap of the California plan is the inadequate financial support, unless the legislature does better than $10,000 a year for the supervision, direction, and administration of physical education throughout the State.

MARYLAND.

The physical training act, which is now a law in the State of Maryland, was introduced before the senate of that State on March 22, 1918.

This law reads in part as follows:

1. There shall be established and provided in all the public schools of this State, and all schools maintained or aided by the State, physical education and training for pupils of both sexes during the following minimum periods: A. In the elementary public schools at least 15 minutes in each school day and also at least one hour of directed play outside of regular classroom work in each school week. B. In public high schools at least one hour in each school week and also at least two hours of directed play or athletics for all pupils outside of regular classroom work in each school week.

The law of Maryland provides for the appointment of a supervisor of physical education whose duties shall be to direct and carry out the provisions of the State law under the direction of the State superintendent of schools. The State board of education is further authorized and directed to appoint such other assistants, both clerical and professional, as may be recommended by the State superintendent of schools as necessary in the administration and surpervision of physical education.

The law further provides that the State supervisor of physical education immediately after his appointment shall organize his work and shall formulate the necessary and proper plans, courses, and regulations for carrying out the provisions in the State law for physical training.

In view of the great resources which Maryland possesses in its highly trained and public-spirited citizens prominent in the health educational movements of our Nation, it is to be expected that Maryland will produce an effective and far-reaching plan for the physical education of her school children.

DELAWARE.

On April 10, 1918, an act was approved by the governor of the State of Delaware prescribing physical training for the school children of the State and creating a physical training commission to inaugurate a system of physical training for school children. This law reads in part, as follows:

> That from and after the passage of this act, the school children of this State shall receive physical training, the character and methods of which shall be prescribed from time to time by the State board of education and a commission is hereby created to be known as "The Physical Training Commission," whose duties shall be to devise a system of physical training and inaugurate the same in the schools of this State, subject to the direction of the State board of education.
>
> The said commission shall consist of the governor and four suitable persons, to be appointed by the governor, who shall serve without pay. The functions of the said commission shall cease when a system of physical training shall have been inaugurated as provided in section 1 of this act.

It is to be expected that in face of the acute realization of the importance of physical education which is now gripping the world, Delaware will make full use of her opportunity.

PART II.

PURPOSE AND SCOPE OF STATE LAWS FOR PHYSICAL EDUCATION.

The following summary shows the essential features of the laws classified under purpose and scope:

The words "purpose" and "scope" as here used mean as follows: *Purpose*, the educational aims to be attained and the specific activities and processes through which these aims are to be realized; *Scope*, the provisions and requirements written into the laws as essential conditions to effective administration of the laws.

The laws enacted in New York, New Jersey, and California are the broadest in purpose and the most definite in character. For this reason, they are considered first in each classification; the other States follow alphabetically. Where no mention is made of a State, the law provides nothing.

I. PURPOSE.

New York.—No statement of purpose is made in the physical training law of the State of New York. The following paragraph occurs in the military training law enacted simultaneously with the physical training law: "In order to more thoroughly and comprehensively prepare the boys of the elementary and secondary schools for the duties and obligations of citizenship, it shall also be the duty of the military training commission to recommend from time to time to the board of regents, the establishment in such schools of habits, customs, and methods best adapted to develop correct physical posture and bearing, mental and physical alertness, self-control, disciplined initiative, sense of duty, and the spirit of cooperation under leadership."

California.—"To provide for the organization and supervision of courses in physical education in the elementary, secondary, and normal schools of the State.

"The aims and purposes of the courses of physical education established under the provisions of this act shall be as follows: (1) To develop organic vigor, provide neuro-muscular training, promote bodily and mental poise, correct postural defects, secure the more advanced forms of coordination, strength, and endurance, and to promote such desirable moral and social qualities, as appreciation of the value of cooperation, self-subordination and obedience to authority, and higher ideals, courage and wholesome interest in truly recreational activities; (2) To promote a hygenic school and home life, secure scientific sanitation of school buildings, playgrounds, and athletic fields, and the equipment thereof."

New Jersey.—"There shall be established and made a part of the courses of instruction in the public schools of this State what shall be known as 'A Course in Physical Training.' Such course shall be adapted to the ages and capabilities of the pupils in the several grades and departments."

It provides for varied and graded physical activity, adapted to age and physical condition as the basic element in physical education, "together with instruc-

tion as to the privileges and responsibilities of citizenship, as they relate to community and national welfare, with special reference to developing bodily strength and vigor, and producing the highest type of patriotic citizenship, and in addition, for female pupils, instruction in domestic hygiene, first aid, and nursing."

Nevada.—"SECTION 1. It is hereby made the duty of all school officers in control of public high schools in the State of Nevada to provide for courses of instruction designed to prepare the pupils for the duties of citizenship, both in time of peace and in time of war. Such instruction shall include: (1) Physical training designed to secure the health, vigor, and physical soundness of the pupil; (2) instruction relative to the duties of citizens in the service of their country. It shall be the aim of such instruction to inculcate a love of country and a disposition to serve the country effectively and loyally."

Rhode Island.—No reference to purpose in the act but the syllabus of the State department of education states: "Physical education may be defined as including healthful, sanitary environment; medical inspection; instruction in physiology and hygiene; and exercise in the form of such motor activities as marching, gymnastics, dancing, supervised play, and athletics." "The general aim of physical education is social efficiency, which includes such specific aims as organic health and vigor, normal physical development, freedom from physical defects, efficient motor control, grace, agility, endurance, and general physical fitness; alertness, courage, judgment, initiative, imagination, obedience, honesty, unselfishness, cooperation, and loyalty."

II. SCOPE.

Included in this term, as shown by the several acts, are the following items:

1. PRESCRIPTION OF AGE OR GRADE LIMITS.

New York.—All male and female pupils above the age of 8 years in all elementary and secondary schools. (Including private schools.)

California.—All pupils enrolled in the elementary schools except pupils who may be excused on account of physical disability; and all high-school pupils except pupils regularly enrolled in high-school cadet companies and pupils excused on account of physical disabilities. By implication all normal school students are included.

New Jersey.—Every pupil, excepting kindergarten pupils, attending public schools of this State, including normal schools, in so far as he or she is physically fit and capable of doing so, which fitness shall be determined by the medical inspector, shall take the course in physical training, and such course shall be part of the curriculum prescribed for the several grades.

Illinois.—All children in all grades in all schools supported wholly or in part by the State, including normal schools.

Maryland.—All pupils of all grades in all schools maintained or aided by the State.

Nevada.—High-school pupils only.

Rhode Island.—All children above the age of 8 years attending public schools or such other schools as are managed and controlled by the State.

2. CREDIT AND GRADUATION.

California.—Completion of such course is a requirement for graduation.

New Jersey.—Conduct and attainment of the pupils shall be marked as in other courses or subjects, and the standing of the pupils in connection therewith shall form part of the requirement for promotion and graduation.

3. TIME REQUIREMENTS.

New York.—Periods shall average at least 20 minutes per day.

California.—Periods shall average 20 minutes per day for elementary schools and at least 2 hours each week for secondary schools.

New Jersey.—Time shall aggregate at least 2½ hours in each school week.

Illinois.—Not less than 1 hour of each week during the whole of the school year.

Maryland.—In the elementary public schools at least 15 minutes in each school day and also at least 1 hour of directed play outside of regular classroom work in each school week.

In public high schools, at least 1 hour in each school week and also at least 2 hours of directed play or athletics for all pupils outside of regular classroom work in each school week.

Rhode Island.—Shall average at least 20 minutes in each school day.

4. AUTHORITY PRESCRIBING COURSES.

New York.—The regents, after conference with the military training commission.

California.—The State board of education.

New Jersey.—Prepared by the State commissioner of education and approved by the State board of education. May employ experts to assist.

Delaware.—The character and method of physical training from time to time shall be as prescribed by the State board of education. A "Physical Training Commission" is created to "devise a system of physical training, and inaugurate the same in the schools of the State subject to the direction of the State board of education." "The functions of said commission shall cease when a system of physical training shall have been inaugurated."

Illinois.—Local boards of education.

Maryland.—State supervisor of physical education, under direction of State superintendent, with approval of State board of education.

Nevada.—Local boards of education.

Rhode Island.—State board of education.

5. AUTHORITY ENFORCING COURSES.

New York.—State commissioner of education.

California.—State board of education.

New Jersey.—State commissioner of education.

Delaware.—State board of education.

Illinois.—Local boards of education.

Maryland.—State board of education.

Nevada.—Local boards of education.

Rhode Island.—State board of education.

6. SUPERVISION.

New York.—State military commission may appoint and at pleasure remove an inspector of physical training at a salary not exceeding $5,000 a year and other assistants, clerks, and employees at salaries to be fixed by the commission.

California.—The State board of education shall appoint a State supervisor of physical education at a salary not exceeding $3,600; and, within the limits of the appropriation provided, may employ such expert and clerical assistance as may be necessary to carry out the provisions of the act.

New Jersey.—State commissioner of education has general supervision and direction. He shall appoint such expert assistants as in the opinion of the State board of education shall from time to time be necessary to carry out the purpose of the act.

Delaware.—No provision other than State board of education.

Maryland.—The State board of education, upon recommendation of the State superintendent of schools, shall appoint a supervisor of physical education whose duty it shall be to direct and carry out the provisions of this act under the direction of the State superintendent of schools.

7. DUTIES OF STATE SUPERVISOR OF PHYSICAL EDUCATION.

New York.—Not specified. Assigned by State military commission.

California.—To have general supervision. Shall exercise general control over all athletic activities of the public schools. Shall advise school officials, school boards, and teachers in matters of physical education. Shall visit and investigate the work in physical education.

Maryland.—To direct and carry out the provisions of the act. Shall formulate the necessary and proper plans, courses, and regulations for carrying out the provisions of the act.

8. LOCAL SUPERVISION.

New York.—No specific provision, except that special teachers of physical training are authorized. In the amendment of 1918, it is provided that the education department may provide for the supervision and special instruction in physical training of teachers regularly employed to give instruction in other subjects who are assigned, under the terms of the act, to give instruction in physical training.

California.—When the number of pupils in any school district or municipality is sufficient, there shall be employed a "competent supervisor and such special teachers of physical education as may be necessary."

9. PROVISIONS AS TO TEACHERS.

New York.—"When the number of pupils in the city or school district * * * is sufficient" there shall be employed "a competent teacher or teachers to give such instructions." "The trustees or boards of education of two or more contiguous districts in the same supervisory district, when authorized or directed by the commissioner of education may join in the employment of a competent teacher." The amendment of 1918 clarifies and improves the provision as follows: The board of education or trustees of every school district in a city and every union free school district *regularly employing 10 or more teachers* shall employ a teacher or teachers *qualified and duly licensed* under the regulations of the regents to give such instructions; in every other district of the State, they shall require such instruction to be given by the teacher or teachers regularly employed to give instruction in other subjects or by a teacher or teachers qualified and duly licensed under the regulations of the regents. Contiguous districts may join forces.

California.—Essentially the same as New York provision before amendment. No definition of "sufficient" number or of "competent" teacher but the provision for joint employment by contiguous districts is purely permissive and no discretion to direct such union is lodged with any authority above the local authorities concerned.

New Jersey, Illinois, Maryland, Rhode Island.—No provision for special teachers. Power is implicit in general school law.

Nevada.—Employment of special teachers of physical training is authorized in all high schools offering a four-year high-school course. They shall devote all or part of their time to physical instruction for both boys and girls.

10. QUALIFICATIONS AND PREPARATION OF TEACHERS.

(Special teachers and regular teachers.)

New York.—Special teachers must be qualified and duly licensed under the regulations of the regents.

First paragraph of item 7 (above) authorizes the State department of education to make provision for the special instruction in physical training of regular teachers assigned to teach physical training.

California.—The State board of education, in standardizing the courses of instruction offered in the several normal schools of the State, shall prescribe a course in physical education and shall make completion of such a course a requirement for graduation.

New Jersey.—The State board of education shall adopt regulations fixing the necessary qualifications of teachers in physical training, and shall require all students at the State normal schools to receive thorough instruction in such courses, and shall provide such instruction for such students in attendance at the State summer schools as may elect to take such instruction.

Illinois.—The curriculum in all normal schools of the State shall contain a regular course of physical education and training for teachers.

Nevada.—Provides for specially licensed teachers of physical training.

11. RELATION TO MEDICAL INSPECTION.

No specific reference to medical inspection except in New Jersey law, where it is written: "To further promote the aims of this course (physical training), any additional requirements or regulations as to medical inspection of school children may be imposed;" and "physical fitness (for physical training) shall be determined by the medical inspector."

In New York, California, and Rhode Island, however, medical inspection in the sense of medico-physical examination, preventive hygiene, and corrective follow-up work are assumed in the administration of the law as essential conditions to effective physical training.

12. FINANCIAL SUPPORT.

All make appropriations for expenses of administration. New York and Nevada only provide for State subsidies to local boards.

New York.—The commissioner of education shall apportion to each city and school district in which physical training is maintained a sum equal to one-half the salary paid to each special teacher of physical training; provided, "that the entire amount apportioned on account of a single teacher during a school year shall not exceed $600;" and provided further, that the courses of instruction and the instruction are approved by the commissioner of education as meeting the standards prescribed and as conforming to the law and the regulations of the regents.

Nevada.—In order to assist in the payment of salaries of physical-training instructors, there is levied a special ad valorem tax of 5 mills on the hundred dollars. The apportionment is made by the State superintendent of public instruction on the basis of $300 for each 100 pupils or fraction thereof enrolled in any high school partaking of the benefits of the act.

13. RELATION TO MILITARY TRAINING.

New York.—The military training commission performs two functions relative to physical training:

(1) Appoints State physical training supervisor and assistants.

(2) Advises and confers with the board of regents as to courses of instruction in physical training and as to preparation for the duties and obligations of citizenship.

The military-training commission prescribes and directs military training for boys between 16 and 19 years of age.

California.—"Pupils regularly enrolled in high-school cadet companies" are exempted from prescribed physical training.

New Jersey.—If the State board of education or any school district or municipality shall determine that the course in physical training as prescribed for male pupils in the high schools shall include military training, such a course shall be prepared by the commissioner of education and the adjutant general and be a part of the course of physical training for male pupils. All male pupils in the high school shall be required to take this course, excepting boys physically unfit, as determined by the medical inspector, or whose parents may have conscientious scruples against military training.

Provision is made for each school district to decide by referendum upon the inclusion of military training in the event that the State board of education does not include military training in the course in physical training.

Nevada.—Section 1 shows that this act was adopted in lieu of military training in the high schools. It is designed to provide a physical training that shall be preparatory to military training or civic efficiency.

PART III.

PRINCIPLES GOVERNING STATE LEGISLATION FOR PHYSICAL EDUCATION.

The enactment of an adequate and effective State law for physical education requires a clear understanding of three things: The objects to be secured through physical education; the processes and accessories necessary for securing these objects; the specific provisions that must be incorporated in the legislative measure.

I. Obviously the object of a State law for physical education is to secure the development of the potential physical capacity of the boys and girls of the State; to make them physically, morally, and socially fit for the duties of citizenship and the joy of wholesome living. Quite as obviously, no system of education, however broadly conceived, can do this single-handed. Education is but one of the social agencies involved in the successful upbringing of youth. Good housing, adequate food, and sane regulation of juvenile labor are equally necessary. Without these cooperative conditions, any system of physical education can be only partially successful in its appointed task of developing the physical capacity of the youth of the State; but an adequate and effective system of physical education will surely stimulate the development of these other agencies in a State.

II. The processes and accessories by which the development of physical capacity may be classified with sufficient accuracy as follows:

1. Processes.

(*a*) Sufficient physical activity of the right character to insure development of strength, endurance, agility, and trained control of the muscular powers; and the moral and social qualities of courage, self-control, self-subordination, cooperation, and initiative.

(*b*) Training into health habits and instruction in health knowledge in order that the individual may know how to take care of his "animal machine" and may reverence it as a servant for high purposes.

2. Accessories.

(*a*) Physical examination—the charting, as it were, of each individual's physical character—repeated at sufficiently frequently intervals to secure a record of growth and physical status.

(*b*) Provision for correction of deficient bodily conditions that impair health and development.

(*c*) Adequate space and equipment for exercise appropriate to varying ages and varying physical and mental status of children and youth.

(*d*) Sanitary school environment, including buildings, grounds, and equipment.

(*e*) Organization and management of the daily school program and methods of instruction in the interest of health and vigor.

III. The legislative provision necessary to an effective State system of physical education will include the following:

1. A clear statement of the purpose and subject of the law (see N. Y., N. J., Cal., R. I.).

2. Provision of administrative machinery in the State department of education sufficient for the effective administration of the law. This provision should be broad and flexible. Two things are essential—

(*a*) State direction and supervision. The best plan is a State director of physical education with the rank of deputy or assistant State superintendent. His powers and duties must not be narrowly defined. (N. Y., Cal., Md.)

(*b*) Sufficient financial resources to insure the effective administration of this office, either by specific appropriation or by authorizing the State department to make adequate appropriation for this purpose out of the general school funds.

3. Provision for the continuous physical education of all children and youth of school age (6–18) in the State.

(*a*) All children in all grades and departments of the public schools.

(*b*) All children in institutional and private schools. (N. Y., R. I.)

(*c*) All students in normal schools and other schools in which teachers are trained. (N. J., Cal.)

(*d*) All boys and girls of school age in industry. This may be secured by extending the continuation school program so as to make physical education obligatory up to 18; or it may be secured by recognizing and crediting such agencies as municipal playgrounds, boy scouts, Young Men's Christian Association. Attempts at precise definition in the law should be avoided. It should be left as an administrative problem under general authorization. (N. Y.)

4. A minimum time requirement for physical education of one hour each day. It should be explicit that this is the minimum and that school authorities are encouraged to increase the time devoted to play, recreation, and athletics outside the regular school hours. For

children in the higher grades and in industry, activities that are approved by the State director of physical education as equivalent to prescribed courses in physical education should be accepted as fulfilling, in whole or in part, the time and quality requirements in physical education.

5. There should be a carefully drawn provision authorizing and requiring the employment of supervisors and special teachers under specified conditions and in harmony with the administrative organization of the State. A State with a county unit organization would require county supervisors; one with supervisory districts would require district supervision. City systems would require both supervisors and special teachers—the latter for intermediate and high schools at least. By specified conditions is meant that a supervisor should be required for a given unit of school population, the size of the unit to depend upon density of population.

6. Provision for State aid to county and local authorities in part payment of the salaries of supervisors and special teachers. (N. Y., Nev.).

7. Provision requiring the State department of education to fix qualifications of supervisors and special teachers and to issue special licenses for the same.

8. Provision for adequate physical education in the preparation of all teachers both for the secondary and the elementary school. The essential requirements of this part of the teachers' education should be prescribed by the State authorities.

9. Special provision for training regular class teachers already in the service in order that they may do their essential part in the program of physical education (N. Y., N. J.).

10. Provision requiring that pupils be graded in physical education as in other school subjects and exercises and that satisfactory progress in physical education be a condition to promotion and graduation. (N. J., Cal.).

11. Effective provision for coordinating medical and sanitary supervision of schools with the physical education. Otherwise such essential factors in a complete program of physical education as detection and correction of defects and sanitary conditions of grounds, buildings, and equipment will be neglected. Most States having medical inspection laws will need to revise and extend them. In States having no such laws the enactment of medical inspection and physical education laws should be worked out so as to insure effective coordination.

12. If, as in some of the laws already enacted, reference is made to military training, the interrelations should be clearly recognized. A system of physical education worthy the name must include all the

essentials of premilitary training: development of sound physical condition, training in care of one's physical self, training in cooperation, respect for discipline. Drill in tactics and the manual of arms can not be accepted as a substitute or equivalent for the course in physical education. If military training is authorized in the law, then the State director of physical education should be authorized and required to pass upon the value of any proposed plan of military training and to accept it as substitute for physical education only in so far as it includes the health, vigor, and endurance producing features of the physical education program.

PART IV.

COPIES OF STATE LAWS FOR PHYSICAL EDUCATION.

THE STATE OF ILLINOIS.

SECTION 1. *Be it enacted by the people of the State of Illinois, represented in the General Assembly*: That it shall be the duty of boards of education and of all boards in charge of educational institutions supported wholly or partially by the State to provide for the physical education and training of pupils of such public schools and educational institutions in all grades, and to include such physical education and training in the courses of instruction regularly taught therein.

SECTION 2. All boards of education and managing boards of such educational institutions shall make proper and suitable provisions in the schools and institutions under their jurisdiction for such physical education and training for not less than one (1) hour of each week during the whole of the school year.

SECTION 3. The curriculum in all normal schools of the State shall contain a regular course of physical education and training for teachers, the said course to be taught not less than one (1) hour of each week during the whole of each term of school.

Approved June 26, 1915.

THE STATE OF NEW YORK.

Law of 1916, as amended in 1918.

SECTION 695. *Instruction in physical training and kindred subjects.*—All male and female pupils above the age of 8 years in all elementary and secondary schools shall receive as part of the prescribed courses of instruction therein such physical training under the direction of the commissioner of education as the regents after conference with the military training commission may determine, during periods which shall average at least 20 minutes in each school day. Pupils above such age attending the public schools shall be required to attend upon such prescribed courses of instruction.

The board of education or trustees of every school district in a city and every union free school district regularly employing 10 or more teachers shall employ a teacher or teachers qualified and duly licensed under the regulations of the regents to give such instruction; in every other district of the State they shall require such instruction to be given by the teacher or teachers regularly employed to give instruction in other subjects or by a teacher or teachers qualified and duly licensed under the regulations of the regents. The boards of education or trustees of two or more contiguous districts in the same supervisory district, however, may join in the employment of a teacher qualified and duly licensed under the regulations of the regents to give such instruction; and the salary of such teacher and the expenses incurred on account of such instruction shall be apportioned by the district superintendent among such districts according to the assessed valuation thereof, and as so apportioned shall be a charge upon each of such districts. Similar courses of instruction shall be prescribed and maintained in private schools in the State, and all pupils in

such schools over 8 years of age shall attend upon such courses; and if such courses are not so established and maintained in any private school, attendance upon instruction in such school shall not be deemed substantially equivalent to instruction given to children of like ages in the public school or schools of the city or district in which the child resides.

Whenever the regents shall adopt recommendations of the military training commission in relation to the establishment in elementary and secondary schools of habits, customs and methods adapted to the development of correct physical posture and bearing, mental and physical alertness, self-control, disciplined initiative, sense of duty and spirit of cooperation under leadership, as provided in the military law, the regents shall prescribe and enforce such rules as may be necessary to carry into effect the recommendations so adopted.

SECTION 696. *Rules of regents.*—It shall be the duty of the regents to adopt rules determining the subjects to be included in courses of physical training provided for in this article, the period of instruction in each of such courses, the qualifications of teachers, the attendance upon such courses of instruction, and relating to carrying out the recommendations of the military training commission when adopted by the regents as provided for in this article.

SECTION 697. *State aid for teachers employed.*—The commissioner of education, in the annual apportionment of State school moneys, shall apportion therefrom to each city and school district on account of courses of instruction as provided in this article, established and maintained in the schools of such city or district during the school year or any part thereof, a sum equal to one-half of the salary paid to each teacher qualified and duly licensed under the regulations of the regents to give instruction in such courses, but the entire amount apportioned on account of a single teacher during a school year shall not exceed $600. Such apportionments shall be made out of moneys to be appropriated therefor, subject to the provisions of law relative to apportionments of public money to the public schools of the State. Such apportionments shall not be made unless such courses of instruction shall be approved by the commissioners of education and the instruction therein shall meet the standards prescribed and conform to the provisions of this article and the rules of the regents of the university in respect thereto. If two or more districts shall jointly employ a teacher thus qualified to give such courses of instruction, the commissioner of education shall apportion a like amount on account of the salary paid to the teacher, which shall be apportioned to the school districts in accordance with the amount required to be paid by each district for the maintenance of such courses of instruction.

LAW OF 1918, CH. 442, Section 2, provides as follows:

The education department may provide for the supervision and special instruction in physical training of teachers regularly employed to give instruction in other subjects, who are assigned or designated as required by this act by boards of education or trustees to give instruction in physical training to the children attending the schools under the management of such boards of education or trustees in which such teachers are employed. The sum of $60,000, or so much thereof as may be necessary, is hereby appropriated for the purpose of making effective the provisions of this section.

MILITARY TRAINING LAW, STATE OF NEW YORK.

Law of 1916, as amended in 1917 and 1918.

SECTION 26. *Military training commission, its assistants, employees and expenses.*—A military training commission for the State is hereby established composed of the major general commanding the National Guard ex officio, who

shall be chairman of the commission, a member to be appointed by the board of regents of the University of the State and a member to be appointed by the governor. The appointed members shall hold office for terms of four years.

The commission shall meet at such places within the State at such stated times as it determines and other meetings shall be held at the call of the chairman or of a majority of the members of the commission at a time and place stated in the call.

The commissioners shall not receive any compensation for their services as such, but they shall be paid their traveling expenses actually and necessarily incurred in the performance of their duties as commissioners.

The commission may appoint and at pleasure remove an inspector of physical training at a salary not exceeding $5,000 a year and other assistants and clerks and employees at salaries to be fixed by the commission.

The commission shall make an annual report to the governor containing a summary of the business transacted with a statement in detail of its expenditures.

SECTION 27. *Physical and disciplinary training in schools; military training.*—(1) The military training commission shall advise and confer with the board of regents of the University of the State of New York as to the courses of instruction in physical training to be prescribed for elementary and secondary schools as provided in the education law.

In order to more thoroughly and comprehensively prepare the boys of the elementary and secondary schools for the duties and obligations of citizenship, it shall also be the duty of the military training commission to recommend from time to time to the board of regents the establishment in such schools, of habits, customs, and methods best adapted to develop correct physical posture and bearing, mental and physical alertness, self-control, disciplined initiative, sense of duty, and the spirit of cooperation under leadership.

(2) After the first day of September, 1916, all boys above the age of 16 years and not over the age of 19 years, except boys exempted by the commission, shall be given such military training as the commission may prescribe for periods aggregating not more than three hours in each week during the school or college year, in the case of boys who are pupils in public or private schools or colleges, and for periods not exceeding those above stated for 41 weeks in each year in the case of boys who are not such pupils. Such training periods, in the case of pupils in schools and colleges, shall be in addition to prescribed periods of other instruction therein and outside the time assigned therefor. Such training shall be conducted under the supervision of the military training commission by such male teachers and physical instructors of schools and colleges as may be assigned by the boards of education or trustees of such schools or governing bodies of such colleges and accepted by the commission, and by officers and enlisted men of the National Guard and Naval Militia selected by the commission and detailed for that purpose or such officers and enlisted men of the United States Army as may be available. The officers and enlisted men of the National Guard and Naval Militia so detailed shall, while in the actual performance of the duties of the detail, receive such percentage of the pay authorized by this chapter for officers and enlisted men of the National Guard and Naval Militia of their respective grades and length of service as may from time to time be fixed by the commission. Teachers and instructors assigned from schools and colleges shall be paid such compensation as the commission may determine out of moneys appropriated for carrying out the provisions of this article.

Such requirement as to military training, herein prescribed, may in the discretion of the commission be met in part by such vocational training or voca-

tional experience as will, in the opinion of the commission, specifically prepare boys of the ages named for service useful to the State, in the maintenance of defense, in the promotion of public safety, in the conservation and development of the State's resources, or in the construction and maintenance of public improvements.

(3) The military training commission shall cause to be issued to each boy above the age of 16 years and not over the age of 19 years, who complies with the requirements of this article, a certificate in such form and in such manner as the commission shall prescribe, stating that such boy is enrolled for military training and is meeting the requirements of the law as to such military training.

(4) No boy above the age of 16 years and not over the age of 19 years shall be permitted to continue in attendance upon instruction in any public or private school or college within the State unless such boy is in possession of a certificate issued as hereinbefore provided, or unless such boy has been exempted by the commission from military training as provided by law and the rules and regulations of the commission. It shall be the duty of the principal or other officer or person having and exercising supervision and control over any such school or college to exclude such boys from attendance upon instruction thereat unless they possess such certificate or are exempted by the commission as herein provided. If the principal or officer in charge of a private school shall fail to comply with the provisions of this subdivision, such school shall not receive any apportionment from public-school moneys or academic funds appropriated by the State legislature for the aid of such schools; and if the officer or person in charge of a college shall fail to comply with the provisions of this subdivision, such college shall not be recognized as one of the colleges which may be attended by the holder of a State scholarship issued under the provisions of chapter 292 of the laws of 1913 and the acts amendatory thereof.

(5) A boy above the age of 16 years and not over the age of 19 years who does not possess a certificate issued as herein provided, showing that he is enrolled for military training and is meeting the requirements of the military training commission as to such military training, shall not be employed or continued in employment by any person, firm, or corporation within this State, or by any officer, manager, superintendent, or other employee acting in behalf thereof, unless such boy has been exempted by the commission under its rules and regulations. (As amended by L. 1917, ch. 49, and L. 1918, ch. 470.)

SECTION 28. *Field training for boys.*—Within the limit of appropriations therefor, the commission shall establish and maintain State military camps of instruction for field training of boys who are physically fit and above the age of 16 years and not over the age of 19 years and who are accepted therefor by the commission. In determining the persons to receive such field training, where moneys available are not sufficient to provide for all, preference shall be given in the following order unless otherwise provided by law: (1) To male pupils in attendance during the preceding school year in secondary schools; (2) pupils in attendance at State agricultural schools and State agricultural colleges during that period; (3) the other boys above specified. The camps shall be located in such places throughout the State as the commission may determine. Any society, organization, or association having a fair ground and entitled to an apportionment of State moneys under sections 310 and 311 of the agricultural law, shall, upon the request of the commission, allow the use of its grounds, or part thereof, for any such camp, when the grounds are not needed for its own purposes, unless previously leased to other parties; and if any such society, association, or organization shall refuse to allow the use of its grounds as above provided, the moneys otherwise due to it under such law

shall be withheld each year in which such refusal occurs. Such field training shall be given annually, during the summer months, and shall for each detachment of boys cover a period of not less than two or more than four weeks, as the commission may determine. Such camps and the training and discipline thereat shall be under the direction and charge of the commission. The major general commanding the National Guard shall detail for service at such camps such number of officers and enlisted men of the National Guard and Naval Militia as may be required by the commission. Such officers and enlisted men during such detail shall receive pay, subsistence, and transportation as authorized in this chapter and the regulations issued thereunder for officers and enlisted men of their grades and length of service on duty under orders of the major general commanding the National Guard. (As amended by L. 1918, ch. 470.)

SECTION 29. *General powers and duties of the commission.*—The commission, in addition to the powers elsewhere in this article conferred on it, shall have power to—

1. Provide for the observation and inspection of the work and methods prescribed under the provisions of this article, or under the provisions of the education law relating to instruction in physical training prescribed after conference with the commission.

2. Prescribe the powers and duties of the inspector of physical training.

3. Regulate the duties of clerical and other assistants and employees of the commission.

4. Prescribe rules and regulations for compulsory attendance during the periods of military training provided in this article.

5. Regulate individual exemptions from prescribed military training.

6. Maintain, and cooperate with the colleges in the State or the Federal authorities in maintaining, courses of instruction for male teachers and physical instructors and others who volunteer and are accepted by the commission.

7. Make regulations and rules for fully carrying into effect the provisions of this article.

SECTION 29–a. *State military property, including armories, may be used.*—The authorities in charge of armories shall, upon the application of the military training commission, allow the use of any armory of the National Guard and Naval Militia for the conduct of military drills provided for by this article, when such armory is not then required for the use of the National Guard or Naval Militia, and shall authorize the temporary use by boys for whom military instruction is provided as prescribed in this article, for the purpose of such drills, of arms, and other equipment of the National Guard and Naval Militia, belonging to the State, not then required for the use of the National Guard or Naval Militia, and of arms and other equipment which may have been rendered obsolete and unserviceable and which may be retained and issued for such purpose, under such rules and regulations as the proper military authorities may prescribe. The military authorities of the State are authorized and empowered to loan to the military training commission such military property as may be necessary in the organization and maintenance of field training camps, and to carry out the provisions of this article.

SECTION 29–b. *Use of school buildings.*—The school authorities throughout the State are authorized to permit the use of school buildings and school grounds for the purpose of carrying out the provisions of this article.

SECTION 29–c. *Expenses of detailed officers and men.*—The expenditures authorized to be made by this article to officers and enlisted men of the National Guard detailed as therein authorized shall be paid from funds appropriated to carry out the provisions of this article.

SECTION 29–d. *Definitions; article not applicable to certain schools.*—The expression "school authorities" as used in this article shall be construed to have the same meaning and effect as is given to such expression in the education law. "Secondary schools" mean schools for "secondary education," as defined in such law, to the extent that they provide such education. None of the provisions of this article shall apply to any agricultural college in any institution in this State which receives the benefits of the act of Congress of July 2, 1862, providing for instruction in agriculture, the mechanic arts, and military training, and in which instruction in military tactics is now required of pupils, nor shall it apply to pupils therein.

THE STATE OF RHODE ISLAND.

SECTION 1. All children above the age of 8 years, attending public schools or such other schools as are managed and controlled by the State shall receive therein instruction and practice in physical training under such regulations as the State board of education may prescribe or approve during periods which shall average at least 20 minutes in each school day. No private school or private instruction shall be approved by any school committee for the purposes of chapter 72 of the General Laws as substantially equivalent to that required by law of a child attending a public school in the same city and town unless instruction and practice in physical training similar to that required in public schools shall be given.

SECTION 2. For the purpose of preparing and introducing such course of instruction, the sum of $500, or so much thereof as may be necessary, is hereby appropriated out of any money in the treasury not otherwise appropriated for expenditure by the State board of education during the fiscal year ending on December 31, 1917; and the State auditor is hereby directed to draw his orders on the general treasurer for the payment of said sum or so much thereof as may be required, on vouchers approved by said State board of education.

SECTION 3. This act shall take effect on and after July 1, 1917.

THE STATE OF NEW JERSEY.

Law introduced February 13, 1917.

1. There shall be established and made a part of the courses of instruction in the public schools of this State what shall be known as "A Course in Physical Training." Such course shall be adapted to the ages and capabilities of the pupils in the several grades and departments, and shall include exercises, calisthenics, formation drills, instruction in personal and community health and safety and in correcting and preventing bodily deficiency, and such other features and details as may aid in carrying out these purposes, together with instruction as to the privileges and responsibilities of citizenship, as they relate to community and national welfare, with special reference to developing bodily strength and vigor, and producing the highest type of patriotic citizenship; and in addition, for female pupils, instruction in domestic hygiene, first aid and nursing. To further promote the aims of this course any additional requirements or regulations as to medical inspection of school children may be imposed.

2. The course herein prescribed shall be prepared by the State commissioner of education, and, when approved by the State board of education, shall constitute the prescribed course in physical training. By and with the approval of the State board of education, the State commissioner of education may employ experts to assist him in preparing such courses of instruction, and to assist in putting into operation the courses and work as prescribed in the public schools of the State.

3. Every pupil, excepting kindergarten pupils, attending the public schools of this State, in so far as he or she is physically fit and capable of doing so, which fitness shall be determined by the medical inspector, shall take the course in physical training as herein provided, and such course shall be a part of the curriculum prescribed for the several grades, and the conduct and attainment of the pupils shall be marked as in other courses or subjects, and the standing of the pupil in connection therewith shall form a part of the requirements for promotion or graduation.

4. The time devoted to such courses shall aggregate at least two and one-half hours in each school week, or proportionately when holidays fall within the week.

5. If the State board of education or any school district or municipality, as hereinafter provided, shall determine that the course in physical training as prescribed for male pupils in the high school shall include military training, such a course shall be prepared by the commissioner of education and the adjutant general and be a part of the course of physical training for male pupils. All male pupils in the high school shall be required to take this course, excepting in the case of boys physically unfit, as determined by the medical inspector, or whose parents may have conscientious scruples against military training; provided, however, in event the State board of education shall not include military training in the requirements for such course, the board of education of any school district, which elects the members of such board by vote of the people, may submit the question of whether the same shall be included in the course of physical training as herein prescribed for such district, or upon petition to the board of education by at least 10 per centum of the legal voters of such district such board shall submit the question to referendum vote of those qualified to vote in such district for members of the board of education; at the ensuing annual or a special election in such school district and in districts which do not elect members of the board of education by vote of the people, when the said board, by resolution passed by it and delivered to the clerk of the municipality within which such district is constituted, shall so determine, or upon petition of at least 10 per centum of the legal voters of such municipality delivered to the clerk of the municipality, said clerk shall cause the question as to whether the course of physical training shall include military training to be submitted to a referendum vote of the legal voters of such municipality and such question shall be placed on the ballot of the next ensuing general election in said municipality.

Before a vote shall be taken, as herein provided, the clerk of the school district or municipality, as the case may be, shall cause 15 days' notice to be published at least twice, in a newspaper or newspapers published or circulating in said school district or municipality. The first insertion of such notice shall be at least 15 days prior to the date of such election. The ballot shall be in the following form:

	Yes.	Shall the course in physical training for male pupils in the high school include military training?
	No.	

To vote in favor of the question, place an X mark in the square to the left of the word "Yes;" to vote against it, place an X mark in the square to the left of the word "No."

The ballots shall be canvassed in the same manner as those for members of the board of education in a school district and for candidates for office in a municipality. If a majority of the votes cast on such question shall be in the affirmative, military training shall be included in the course of physical training for male pupils in the high school of such district or municipality, as the case may be.

The cost of all matters pertaining to such referendum vote shall be borne by the school district or municipality, as the case may be.

6. Where the course of physical training is amended to include military training, as provided in section 5, such necessary equipment, and expenses incidental thereto, shall be provided in the same manner as other expenses for the maintenance of the schools are provided.

7. Where a course of military training is included in the course of physical training, as herein provided, the instructor shall at all times hold a certificate as to qualification as an instructor in military training from the adjutant general, and the salary of the instructor shall be met by the district obtaining these services.

8. The State board of education shall adopt regulations fixing the necessary qualifications of teachers in physical training, and shall require all students at the State normal schools to receive thorough instruction in such courses, and shall provide such instruction for such students in attendance at the State summer schools as shall elect to take such instruction.

9. The instruction and courses in physical training shall be subject to the general supervision and direction of the commissioner of education. The commissioner of education shall appoint such expert assistants as in the opinion of the State board of education shall from time to time be necessary to carry out the purposes of this act.

10. The courses herein required shall be made a part of the instruction beginning with the next fall term of the school year; provided, that where the course of military training is adopted by a referendum vote, such course shall be instituted within 60 days of the date of such election. The board of education of any school district is hereby authorized to borrow on temporary loan such money as may be necessary for carrying out the provisions of this act in its respective district. Money so borrowed shall be placed in the appropriation, which shall be operative beginning July 1, 1918, and shall be paid by the 31st day of December, 1918. In the budget for the school year, beginning July 1, 1918, and each year thereafter, appropriation shall be made for carrying out the provisions of this act.

11. For the purpose of enabling the State commissioner of education and the State board of education to carry out the provisions of this act, the sum of $10,000 shall be appropriated in the supplemental appropriation bill and $12,000 in the annual appropriation bill.

12. This act shall take effect immediately.

THE STATE OF NEVADA.

SECTION 1. It is hereby made the duty of all school officers in control of public high schools in the State of Nevada to provide for courses of instruction designed to prepare the pupils for the duties of citizenship, both in time of peace and in time of war. Such instruction shall include (1) physical training designed to secure the health, vigor, and physical soundness of the pupil; (2) instruction relative to the duties of citizens in the service of their country. It shall be the aim of such instruction to inculcate a love of country and a disposition to serve the country effectively and loyally.

Special Teacher, When.

SECTION 2. All boards of education or boards of school trustees of county or district high schools offering a four-year high-school course are hereby empowered to employ teachers of physical training who shall devote all or part of their time to physical instruction for both boys and girls.

State Tax Authorized.

SECTION 3. In order to assist in the payment of salaries of said physical training instructors, there shall be levied on the passage of this act an ad valorem tax of 5 mills on the $100 of assessed valuation of all the taxable property of the State.

Superintendent of Public Instruction to Apportion Money.

SECTION 4. The State superintendent of public instruction at the time of the apportionment of other State school funds shall apportion the funds derived from the levy as provided in section 3 of this act on the basis of the high-school enrollment of the preceding school year, as follows: Three hundred dollars for each 100 pupils, or fraction thereof, enrolled in any high school partaking of the benefits of this act; but no high school shall receive such apportionment unless a legally licensed teacher of physical training is employed therein.

In Effect.

SECTION 5. This act shall take effect and be in force from and after its passage and approval.

Approved March 21, 1917.

THE STATE OF CALIFORNIA.

SECTION 1. The board of education of each county, city and county, and city, whose duty it is to prescribe the course of study for elementary schools of such county, city and county, or city, shall prescribe suitable courses of physical education in accordance with the provisions of this act for all pupils enrolled in the day elementary schools, except pupils who may be excused from such training on account of physical disability; and the high-school board of each high-school district shall prescribe suitable courses of physical education in accordance with the provisions of this act for all pupils enrolled in the day high schools of such district, except pupils regularly enrolled in high-school cadet companies and pupils who may be excused from such courses on account of physical disability.

SECTION 2. The aims and purposes of the courses of physical education established under the provisions of this act shall be as follows: (1) To develop organic vigor, provide neuromuscular training, promote bodily and mental poise, correct postural defects, secure the more advanced forms of coordination, strength, and endurance, and to promote such desirable moral and social qualities as appreciation of the value of cooperation, self-subordination, and obedience to authority, and higher ideals, courage, and wholesome interest in truly recreational activities; (2) to promote a hygienic school and home life, secure scientific supervision of the sanitation of school buildings, playgrounds, and athletic fields, and the equipment thereof.

SECTION 3. It shall be the duty of the superintendent of schools of every county, city and county, or city, and of every board of education, board of school trustees, or high-school board, to enforce the courses of physical education prescribed by the proper authority, and to require that such physical education be given in the schools under their jurisdiction or control. All pupils enrolled in the elementary schools, except pupils excused therefrom in

accordance with the provisions of this act, shall be required to attend upon such courses of physical education during periods which shall average 20 minutes in each school day, and all pupils enrolled in the secondary schools, except pupils excused therefrom in accordance with the provisions of this act, shall be required to attend upon such courses of physical education for at least two hours each week that school is in session.

SECTION 4. When the number of pupils in any city, or city and county, or school district is sufficient, such city, or city and county, or school district shall employ a competent supervisor, and such special teachers of physical education as may be necessary. The trustees of two or more contiguous elementary school districts, or the trustees of one or more elementary school districts and the high-school board of the high-school district in which such elementary school district or districts are situated, may by written agreement join in the employment of a competent teacher of physical education for such districts, and the salary of such teacher and the expenses incurred on account of such instruction shall be apportioned as the school board concerned may agree.

SECTION 5. The State board of education, in standardizing the courses of instruction offered in the several normal schools of the State, shall prescribe a course in physical education, and shall make the completion of such course a requirement for graduation.

SECTION 6. It shall be the duty of the State board of education: (1) To adopt such rules and regulations as it may deem necessary and proper to secure the establishment of courses in physical education in the elementary and secondary schools in accordance with the provisions of this act; (2) to appoint a State supervisor of physical education whose duties are hereinafter defined; (3) to compile, or cause to be compiled and printed, a manual in physical education for distribution to teachers in the public schools of the State.

SECTION 7. The supervisor of physical education appointed under the provisions of this act shall be experienced in the supervision of physical education in public schools. He shall not be subject to the provisions of any civil-service law of the State. He shall exercise general supervision over the courses of physical education in elementary and secondary schools of the State; shall exercise general control over all athletic activities of the public schools; shall advise school officials, school boards, and teachers in matters of physical education; shall visit and investigate the work in physical education in the public schools, and shall perform such other duties as may be assigned to him by the State board of education. He shall receive a salary not exceeding $3,600 per annum, as fixed by the State board of education, payable at the same time and in the same manner as the salaries of other State officers are payable. He shall also receive his actual and necessary traveling expenses while on official business. The State board of education may, within the limits of the appropriation hereinafter provided, employ such expert and clerical assistance as may be necessary to carry out the provisions of this act.

SECTION 8. The sum of $10,000 is hereby appropriated out of any moneys belonging to the State not otherwise appropriated to defray the expenses of the State board of education in carrying out the provisions of this act during the sixty-ninth and seventieth fiscal years.

Approved May 26, 1917.

THE STATE OF DELAWARE.

SECTION 1. That from and after the passage of this act, the school children of this State shall receive physical training, the character and method of which shall be as prescribed from time to time by the State board of education, and

a commission is hereby created to be known as "The Physical Training Commission," whose duty shall be to devise a system of physical training and inaugurate the same in the schools of this State, subject to the direction of the State board of education.

SECTION 2. The said commission shall consist of the governor and four suitable persons, to be appointed by the governor, who shall serve without pay.

The functions of the said commission shall cease when a system of physical training shall have been inaugurated, as provided in section 1 of this act.

Approved April 10, 1918.

THE STATE OF MARYLAND.

Introduced March 22, 1918.

SECTION 1. Be it enacted by the General Assembly of Maryland, that there shall be established and provided in all the public schools of this State and in all schools maintained or aided by this State physical education and training for pupils of both sexes during the following minimum periods: A. In the elementary public schools at least 15 minutes in each school day and also at least one hour of directed play outside of regular classroom work in each school week. B. In public high schools at least one hour in each school week and also at least two hours of directed play or athletics for all pupils outside of regular classroom work in each school week.

SECTION 2. And be it enacted, that the State board of education upon recommendation of the State superintendent of schools shall appoint a supervisor of physical education, whose duty it shall be to direct and carry out the provisions of this act under the direction of the State superintendent of schools. The salary of such supervisor shall be fixed and paid by the State board of education out of any funds in its possession available for this purpose.

The State board of education upon recommendation of the State superintendent of schools is hereby authorized and directed to appoint such other assistants, both clerical and professional, as shall be necessary in the administration and supervision of physical education; and shall make such by-laws and other regulations as shall be necessary to carry into effect the provisions of this act.

SECTION 3. And be it further enacted, that immediately after his appointment the supervisor of physical education, under the direction of the State superintendent of schools, shall organize his work and shall formulate the necessary and proper plans, courses, and regulations for carrying out the provisions of this act which when approved by the State board of education shall be followed in providing physical education and training as required under section 1 of this act.

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BULLETIN, 1918, No. 41

Statistics of Agricultural and Mechanical Colleges

1916–17

BY

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STATISTICS OF AGRICULTURAL AND MECHANICAL COLLEGES.

The report of the agricultural and mechanical colleges for the year 1916–17 has more than ordinary significance on account of the important relation of these institutions to the war. From the beginning they have cooperated closely with the Government in furnishing a large quota of men with military training. Courses have been added which will further promote efficiency in the home and agricultural life of the community at large. Many colleges have added or adapted mechanical and engineering courses which will be of special service in war activities. The statistics which follow do not show the exact loss of students and instructors which resulted from the declaration of war, but it has been estimated that the loss amounts to about 20 per cent of the total enrollment.

While special concessions were extended to students who were about completing courses, so that they received credit for the last few weeks of their work although absent in the service of the Nation, yet it has generally been considered inadvisable to continue this policy unless the student were actually present. As a result, students have not been carried on the registration rolls unless in residence, as has been done generally in Germany.

RESERVE OFFICERS' TRAINING CORPS.

The year 1916–17 marks the beginning of the regular system of Reserve Officers' Training Corps in the institutions. Previous to the authorization of these courses it was impossible for the War Department to properly recognize the military work of the colleges by granting to proper graduates commissions in the Army. It is now arranged that, if the institution offers certain special military work, the student may upon graduation be immediately commissioned a provisional second lieutenant in the regular Army (this is on a peace basis); in addition, the students who are taking the reserve officers course are allowed other privileges, such as allowance for uniforms. Altogether, it marks a distinct step forward in recognition of the military work which has always been given by the agricultural and mechanical colleges.

Under the provisions of the act of Congress of June 3, 1916, the War Department is placed in immediate control of the military

instruction given in all institutions that have units of the Reserve Officers' Training Corps. The General Orders, No. 49, 1916, of the War Department give in detail the provisions for the establishment, administration, and maintenance of the Reserve Officers' Training Corps at educational institutions in time of peace. A partial synopsis of the principal provisions follows:

All units will be organized in two divisions, a senior division requiring four years of collegiate study, a junior division composed of all other units.

Only institutions at which an officer of the Army is detailed as instructor in military science and tactics and at which at least 100 male students are under military instruction will be eligible for units.

The course of study in military science may be prescribed by the War Department and shall be of not less than three hours per week for the senior division.

Arms, uniforms, equipment, and supplies may be issued to units.

Any graduate of the senior division course may be, in time of peace, commissioned temporary additional second lieutenant in the Regular Army for six months, with pay at the rate of $100 per month and allowances. After the expiration of this service he reverts to the status of a reserve officer.

Only about half of the institutions had perfected the organization of units during the year 1916–17, but practically all will have obtained units before the close of 1917–18.

FEDERAL ACTS FOR THE BENEFIT OF THE COLLEGES OF AGRICULTURE AND THE MECHANIC ARTS.

The principal acts providing for the support of instruction in these institutions are three in number:

(1) The act of July 2, 1862, granting public lands to the States, known as the "first Morrill Act," and the act of March 3, 1883, amending the previous act and providing for the investment of capital.

(2) The act of August 30, 1890, making yearly appropriations to the States and Territories in aid of colleges of agriculture and the mechanic arts, known as the "second Morrill Act."

(3) The act of March 4, 1907, known as the "Nelson amendment," increasing the annual appropriation to $50,000 per year to each State and extending the conditions for the use of the funds.

In addition to the three acts supporting instructional work, there have been three acts granting Federal aid for experimentation and extension work:

(1) The act of March 2, 1887, the "Hatch Act," granting $15,000 to each State for agricultural experiment stations.

(2) The act of March 16, 1906, the "Adams Act," increasing the annual payment for experiment stations to $30,000 for each State.

(3) The act of May 8, 1914, the "Smith-Lever Act," making an annual appropriation to each State for agricultural extension work.

There are also a number of subsidiary acts and amendments, such as the acts authorizing the detail of Army officers to the colleges as instructors in military science and tactics, the act authorizing free postage on reports, etc.

The benefits of the act of 1862, or of later acts in lieu of it, are received by every State, and 53 institutions are thereby aided—one in each of 43 States and two each in Massachusetts, Mississippi, South Carolina, Virginia, and Kentucky. Massachusetts divides its fund between the Agricultural College and the Institute of Technology; while Mississippi, South Carolina, Virginia, and Kentucky divide the funds between institutions for white and colored students.

The amount of the appropriation under the acts of 1890 and 1907 is now fixed at $50,000 for each of the 48 States and the two insular possessions—Porto Rico and Hawaii. Sixty-eight institutions are aided. Seventeen States maintain special colleges for colored students, which receive part of this fund.

Professors, instructors, extension workers, and experiment station staff, 1916–17.

	1912–13	1913–14	1914–15	1915–16	1916–17
In institutions for white students	8,276	9,019	9,742	9,961	9,800
In institutions exclusively for colored students	439	511	529	535	544
Total	8,715	9,530	10,271	10,496	10,344

Student enrollment, 1916–17.

	1912–13	1913–14	1914–15	1915–16	1916–17
In institutions for white students	90,705	105,803	114,905	119,886	122,053
In institutions exclusively for colored students	8,561	9,251	10,170	10,613	11,352
Total	99,266	115,054	125,075	130,499	133,405

Students in regular college courses in certain subjects in institutions for white students.

Subjects.	1912–13	1913–14	1914–15	1915–16	1916–17
Agriculture	10,871	13,249	13,833	15,025	14,348
Horticulture	459	512	1,053	634	941
Forestry	534	485	989	374	347
Veterinary science	598	598	1,294	841	773
Household economics	3,074	4,018	4,431	5,177	5,055
Mechanical engineering	3,830	4,096	4,189	4,340	4,417
Civil engineering	3,392	3,473	3,289	3,015	2,822
Railway engineering	74	55	336	517	46
Electrical engineering	3,027	3,277	3,335	3,921	3,256
Mining engineering	796	677	713	671	871
Chemical engineering	598	778	871	1,095	1,505
Sanitary engineering	117	132	495	355	79
Textile engineering	69	90	99	150	107
General engineering	2,525	2,612	2,383	2,143	2,165
Architecture	713	1,045	844	890	964
Chemistry	729	614	715	713	831
Pharmacy	195	143	249	168	377
General science	4,860	4,356	4,842	5,673	8,959

Students in military science and tactics, 1916–17.

Institutions.	1912–13	1913–14	1914–15	1915–16	1916–17
In institutions for white students	22,804	26,600	28,746	31,268	33,704
In institutions exclusively for colored	2,426	2,436	2,029	2,177	1,415
Total	25,230	28,036	30,775	33,445	35,119
In Reserve Officers' Training Corps courses					8,035
Grand total					43,154

Enrollment in the principal divisions in institutions for white students, 1916–17.

Departments.	1912–13	1913–14	1914–15	1915–16	1916–17
Agriculture	12,462	14,844	17,169	16,874	16,409
Home economics	3,074	4,018	4,431	5,177	5,055
Mechanic arts	15,141	16,235	16,554	17,097	16,201
Short and special courses	11,300	15,510	11,997	12,181	16,477
All departments	90,705	105,803	114,905	119,886	122,053

Enrollment in institutions exclusively for colored students.

Departments.	1912–13	1913–14	1914–15	1915–16	1916–17
Preparatory	3,603	3,973	4,884	5,802	5,993
Industrial			420	573	1,048
Collegiate	1,138	2,135	2,020	[1] 981	903
All others	3,939	3,361	3,537	3,290	3,408
Total, excluding duplicates	8,561	9,251	10,170	10,613	11,352
Agriculture	1,795	2,200	2,368	2,053	2,054
Household arts	5,365	5,487	5,652	5,758	4,118
Industrial arts	2,725	2,848	3,024	2,683	2,825

[1] Reduction is due to a more rigid classification.

Bachelor or first degrees, 1916–17.[1]

Courses.	1912–13	1913–14	1914–15	1915–16	1916–17
In agricultural courses	1,384	1,903	2,311	2,584	2,803
In mechanical courses	1,775	1,959	2,145	2,279	2,404
In home economics	318	436	653	754	787
All other courses	3,935	4,205	4,362	4,573	5,367
Total	7,412	8,503	9,471	10,190	11,361

ADVANCED DEGREES, 1916–17.

In agricultural courses	165	147	150	229	221
In mechanical courses	207	153	202	238	186
In home economics	39	17	5	7	9
All other courses	672	880	755	825	897
Total	1,083	1,197	1,112	1,299	1,313

[1] Not including institutions exclusively for colored students.

PROPERTY, 1916–17.

There has been an increase of $13,888,780 in the value of all property held for the benefit of the land-grant colleges, while the total expenditure for building operations during the year was reported at $10,031,932.

Value of property.

	1912–13	1913–14	1914–15	1915–16	1916–17
Endowment funds	$46,663,022	$59,966,160	$61,283,123	$63,704,947	$66,367,086
Farm and grounds	22,157,858	23,981,085	19,062,872	16,649,798	30,937,913
Buildings	47,003,199	51,825,766	65,524,849	72,575,218	65,619,208
Apparatus and machinery	14,400,127	16,842,273	18,524,284	18,603,947	22,198,115
Library	5,664,596	5,996,787	6,111,788	6,441,133	6,685,958
Live stock	1,046,760	1,686,282	1,293,681	1,444,395	1,599,928
Total	136,935,562	160,298,353	171,800,597	179,519,438	193,408,218

GIFTS, BUILDINGS, AND IMPROVEMENTS, 1916-17.

University of Arizona.—New central heating plant, $50,000; president's garage $1,250; the mining and engineering building to cost $175,000 was begun.

University of Arkansas.—Brick addition to the library of the college of agriculture, $1,000.

University of California.—Expenditures on new buildings and additions to buildings—At Berkeley: Aeronautics building, of frame, $3,400; Jane K. Sather campanile, $5,903; first wing of the chemistry building, $144,860; domestic science building, frame, $2,119; Hilgard Hall, for agricultural departments, $226,828; power-plant addition, $78,000; addition to and completion of university library building, $401,847; storehouse, $10,122; Wheeler hall for classrooms, $430,597; total, $1,303,676. At San Francisco: University hospital building, $286,489; addition to dentistry building, $29,941. At Riverside: Laboratory building for the citrus experiment station, $95,143; director's residence, $24,052. Grand total, $1,739,500.

Colorado Agricultural College.—The General Assembly of Colorado provided a joint mill-tax levy for the erection of buildings during a period of 10 years. A building fund is provided that permits definite campus and building planning with assurances that these can be carried out.

Connecticut Agricultural College.—Central heating plant partly completed.

University of Illinois.—Mechanical engineering laboratory reconstructed, $40,000; the woman's residence hall completed, the first dormitory erected by the university, $175,000; this building will be occupied until the end of the war by the aviators in training for the United States aviation school.

Purdue University, Indiana.—Biology building completed, $100,000.

Iowa State College of Agriculture and Mechanic Arts.—Buildings in course of construction will be ready for occupancy in 1917–18. Hospital, $45,000; dairy barn, $20,000; dormitory for women, $60,000; animal husbandry laboratory, $50,000.

Kansas State Agricultural College.—Stone barn for the department of horticulture, $2,350.

Michigan Agricultural College.—A new general engineering building, $168,000, with equipment for same, $50,000, was completed to replace structure destroyed by fire, March 5, 1916.

University of Missouri.—Improvements to central heating plant, $22,500; other improvements, $2,325.75.

Montana State College of Agriculture and Mechanic Arts.—On October 20, 1916, the chemistry building burned; an appropriation of $50,000 has been made to replace one unit of it, and another appropriation of $50,000 has been made for a new engineering building.

University of Nevada.—New agricultural building, $80,000; purchase of a farm, $43,000.

Cornell University, New York State College of Agriculture.—New sheep barn erected; a new palm and decorative plant greenhouse erected; addition to stock-judging pavilion and forestry building.

Oklahoma Agricultural and Mechanical College.—One seed house on station farm, $2,200.

Oregon Agricultural College.—The State appropriated $65,000 toward the construction of a new library building to cost approximately $115,000; it is under construction, to be completed in 1918. A new hog barn was completed at a cost of $5,520, and an additional $4,000 was expended on the forestry building.

Rhode Island State College.—The legislature appropriated $80,000 for a building for agriculture and home economics; construction will be postponed until after the war.

University of Tennessee.—The legislature has provided a one million dollar bond issue for new buildings, and a one-half mill tax for support; it also provided for the establishment of a new agricultural experiment station in middle Tennessee, in Maury County, near Columbia. Building operations will be postponed because of war conditions in the building trades.

Agricultural and Mechanical College of Texas.—Assembly hall, $100,000; experiment station building, $75,000; steam plant, $75,000; veterinary medicine building, $100,000; and new dormitory, $90,000.

Virginia Agricultural and Mechanical College and Polytechnic Institute.—Three new residences costing $13,600; and additions to shops, $7,000.

West Virginia University.—In process of construction an agricultural building, and a women's dormitory, to cost $315,000.

University of Wisconsin.—New construction during 1916–17: New entry to gymnasium, $3,678; boat and bath house, $3,511; Camp Randall improvements, $8,501; women's field house, $4,426; sprinkler system in chemistry building, $4,882; soils building, $25,861; physics building, $123,886; repairs on agricultural chemistry building, $1,002; hog serum laboratory, $2,949; stock and forage barn, $3,178; heating station, $3,322; serum plant, $1,416; Ashland station, $2,760; Spooner station, $1,487; music hall, $13,745; pumping station, $11,801; improvement of grounds, $2,793; electrical substation, $2,949; university farm improvements, $2,272; all other new construction, $3,822; total, $228,241.

INSTITUTIONS FOR COLORED STUDENTS.

State Agricultural and Mechanical College for Negroes, Alabama.—The Mayhew Building, containing the carpentry and machine shops, was destroyed by fire January 17, 1917, and is a total loss. No provision has been made for replacing it.

Southern University and Agricultural and Mechanical College, Louisiana.—A hospital, constructed by the students in the mechanical department, has been completed with a cash outlay of about $3,000; also a bridge over the lake for $500. Plans are ready for a dairy, to be built in the same manner with funds available in 1918.

Colored Normal, Industrial, Agricultural, and Mechanical College,[1] *South Carolina.*—In October, 1916, fire destroyed the chapel and boys' dormitory. The dormitory is being rebuilt with money from fire insurance and some furnished by the State.

Prairie View State Normal and Industrial College, Texas.—The following new buildings are in course of construction: Household arts building, $50,000; a brick laundry, $15,000; and a dormitory, $50,000.

INCOME, 1916–17.

In reporting the income of the colleges, the growing importance of both the experimental work and the extension work has made it advisable to separate the items into three distinct groups—funds for instruction and administration, funds for the experiment stations, and funds for the extension service. In Table 9 is given the first of these groups, funds for instruction and administration, and in Table 10 are given the other two groups, together with the grand total income.

[1] Name since changed to State Agricultural and Mechanical College.

The following tables give the income under the old classifications for the years 1913–1916, inclusive, and the income under the new classification for the year 1916–17.

Income for five years.

Source of income.	Funds for instruction and administration.				
	1913	1914	1915	1916	1917
State funds:					
From endowment granted by the State	$131,415	$479,050	$104,966	$135,444	$160,766
From mill tax levy for support	3,095,341	4,010,234	3,733,316	3,842,112	6,441,533
From mill tax levy for permanent improvements	591,924	615,183	624,467	629,419	692,116
From appropriations for support	6,703,831	9,176,464	10,774,782	11,829,281	10,300,845
From appropriations for permanent improvements	3,695,249	3,716,834	2,768,576	2,833,204	3,783,702
Total State aid	14,217,760	17,997,765	18,006,107	19,269,460	21,378,962
United States funds:					
From land-grant fund of 1862	859,074	846,087	856,838	884,514	930,170
From other land-grant funds	186,551	264,111	195,239	193,573	241,840
From Morrill-Nelson funds of 1890 and 1907	2,490,000	2,500,000	2,500,000	2,500,000	2,515,171
Total Federal aid	3,535,625	3,592,198	3,552,077	3,578,087	3,687,181
College funds:					
From college endowment funds	966,204	1,151,511	1,216,672	1,144,075	1,399,607
From tuition, fees, board, and lodging [1]	2,683,960	3,059,358	3,565,771	3,741,429	6,077,868
From departmental earnings	[2]	[2]	[2]	[2]	2,970,412
From private gifts for support	[2]	[2]	[2]	[2]	312,054
From private gifts for permanent improvements and endowment	[2]	[2]	[2]	[2]	901,340
Miscellaneous	3,558,590	9,090,392	5,621,138	10,541,771	1,113,836
Total college funds	7,208,754	13,301,261	10,403,581	15,427,275	12,775,117
Total income for instruction and administration	24,962,139	34,891,224	31,961,765	38,274,822	37,841,260

FUNDS FOR EXPERIMENT STATIONS.

State funds	$1,024,455	$1,068,441	$1,129,709	$1,059,018	$1,588,883
United States funds	1,359,302	1,347,459	1,369,288	1,362,000	1,369,700
Private gifts	[3]	[3]	[3]	[3]	242,620
Experiment station earnings	[3]	[3]	[3]	[3]	1,213,216
Total funds forexperiment stations	2,383,757	2,415,900	2,498,997	2,421,018	4,414,419

FUNDS FOR EXTENSION SERVICE.

State funds, Smith-Lever, and others	$722,425	$1,292,273	$1,075,005	$1,364,356	$2,325,563
United States funds			491,238	1,113,490	1,411,836
County, city, or association funds	[3]	[3]	[3]	[3]	696,334
Private gifts and miscellaneous	[3]	[3]	[3]	[3]	79,985
Total for extension service	722,425	1,292,273	1,566,243	2,477,846	4,513,718
Grand total income of institutions	28,068,321	38,599,397	36,027,005	43,173,686	46,769,397

[1] Receipts from board and lodging included for the first time in 1917.
[2] Included in miscellaneous.
[3] Not reported.

MORRILL-NELSON FUND.

Funds Appropriated Under Acts of Congress of August 30, 1890, and March 4, 1907.

The total appropriation for the year ending June 30, 1917, from the United States Treasury in aid of colleges of agriculture and the mechanic arts under the provisions of the acts of Congress of August

30, 1890, and March 4, 1907, was $2,500,000, each of the 48 States and the two insular possessions receiving $50,000. In Table 11 are given the details for the year 1916–17. In addition this table shows $7,132.60 received from bank interest on daily balances during the year in three States and added to the principal. The annual installment has been fixed at $50,000 to each State since the year 1911–12. The following tables give the amount expended under each schedule and the proportion each year:

Morrill-Nelson funds.

(Acts of Aug. 30, 1890, and Mar. 4, 1907.)

Subjects.	1912–13	1913–14	1914–15	1915–16	1916–17
Agriculture	$584,512	$592,920	$579,374	$611,606	$587,411.01
Mechanic arts	667,507	700,140	717,503	694,347	702,838.53
English language	235,873	222,844	219,011	211,989	207,928.46
Mathematics	229,322	219,057	207,045	197,022	199,002.88
Natural and physical science	616,494	600,413	565,881	581,797	581,734.37
Economic science	156,379	168,771	179,519	184,813	194,991.44
Training of teachers in special subjects	43,537	30,474	33,329	34,777	44,270.48
Total	2,532,624	2,534,619	2,501,662	2,516,351	2,518,237.17

Percentage of appropriation expended for instruction in various subjects.

Subjects.	1912–13	1913–14	1914–15	1915–16	1916–17
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Agriculture	23.3	23.7	23.1	24.4	23.3
Mechanic arts	26.3	27.7	28.7	27.5	27.9
English language	9.4	8.6	8.8	8.4	8.3
Mathematical science	9.1	8.5	8.3	7.8	7.9
Natural and physical science	24.6	23.6	22.6	23.1	23.1
Economic science	6.2	6.7	7.2	7.4	7.7
Training of teachers in special subjects	1.1	1.2	1.2	1.4	1.8

LAND-GRANT FUND OF 1862.

Income from Funds Created by the Land-Grant Act of 1862.

Under the act of Congress of July 2, 1862, 10,783,819 acres of public lands have been allotted to the different States; of these, 1,020,696 acres remain unsold. From the sale of these lands permanent funds have been created amounting to $15,254,899, yielding an income of $960,009 for the benefit of the colleges. In Table 12 are given the details of income and expenditure for the year 1916–17. The figures below are the totals for the past three years.

Land-grant fund of 1862.

	1914–15	1915–16	1916–17
Principal of fund	$14,493,441	$15,105,925	$15,254,899
Income for year	964,579	916,151	960,009
Expenditures for year	948,381	928,048	931,039

CHANGES IN COURSES AND METHODS OF INSTRUCTION.

Alabama Polytechnic Institute.—The course in veterinary medicine has been changed from three to four years.

Delaware College.—A department of education has been organized.

Purdue University, Indiana.—An engineering experiment station has been organized.

Kansas State Agricultural College.—The calendar has been changed to two semesters and a nine weeks' summer school.

Massachusetts Institute of Technology.—The new course of chemical engineering practice requires the student to study at the institute for three and one-half years, for one year at factories distributed over the country in laboratory methods, and then finally to return to the institute for a year of research and special work, receiving at the end of a five-year period the degree of master of science in chemical engineering. A course in electrical engineering is to be given by the institute and the General Electric Co.; students will transfer from the institute to the General Electric Co. after the second year; each class will be divided into two squads, one at the institute and the other at the General Electric Co.; the squads will interchange places every three months.

Montana State College of Agriculture and Mechanic Arts.—Beginning October 1, 1917, the calendar was changed from two semesters of 18 weeks each to four quarters of 12 weeks each.

North Dakota Agricultural College.—Professional courses for teachers have been established.

Clemson Agricultural College, South Carolina.—New courses in chemical engineering and in general science have been introduced, and the mechanical-electrical engineering course has been divided into two distinct courses—mechanical engineering and electrical engineering.

Agricultural and Mechanical College of Texas.—All preparatory work has been abolished; a school of veterinary medicine has been established.

Virginia Agricultural and Mechanical College.—A four-year course in applied physics, leading to a B. S. degree, has been established; in connection with the University of Virginia and William and Mary College, a four-year teachers' training course in agriculture, designed to fit teachers for vocational schools, has been added.

University of Wyoming.—The home economics courses have been rearranged and a two-year special vocational course added. A four-year course in music has been introduced, leading to the degree of bachelor of music. Solid geometry is no longer a required subject for admission to the college of agriculture.

INSTITUTIONS FOR COLORED STUDENTS.

Branch Normal College, Arkansas.—A year has been added to the normal course; in the last year two periods a day will be taken by boys in agriculture and mechanic arts, by girls in gardening and home economics. A community class in sewing, cooking, and canning was held.

State College for Colored Students, Delaware.—Latin has been dropped from the curriculum and more emphasis placed on the training of teachers for rural schools.

Southern University and Agricultural and Mechanical College, Louisiana.—Through the Louisiana State University 6 demonstration extension agents for negroes have been in the field; beginning September 1 this number was increased to 12; in addition 2 women canning agents were employed; the extension work culminated in a farmers conference at the college.

Princess Anne Academy, Maryland.—Extension work has been inaugurated.

Lincoln Institute, Missouri.—Two years have been added to the normal course, carrying it to include two years of college work beyond the four years of high school.

Prairie View State Normal and Industrial College.—The former general curriculum has been revised and separated into four distinct curricula—normal, household arts, agricultural, and mechanic arts. Several short courses have been added, a two-year course in agriculture and a two-year course in home economics, also 13 vocational or trade courses.

TABLE 1.—*Statistics of colleges of agriculture and the mechanic arts endowed by acts of Congress approved July 2, 1862, August 30, 1890, and March 4, 1907, for 1916–17.*

Institutions.	President.	Date of opening of institution.	Acres alloted to States under act of July 2, 1862, or equivalent act.	Acres of land grant of 1862 still unsold.	Acres of other land grants still unsold.	Acres in farm and grounds.	Acres under cultivation.	Library.	
								Volumes.	Pamphlets.
1	2	3	4	5	6	7	8	9	10
Alabama Polytechnic Institute, Auburn, Ala	Charles C. Thach, LL. D	1872	240,000	0	0	304	90	33,550	5,200
University of Arizona, Tucson, Ariz	Rufus B. von Klein Smid, Sc. D	1891	150,000	150,000	387,000	580	365	25,000	15,000
University of Arkansas, Fayetteville, Ark	John C. Futrall, M. A	1872	150,000	0	0	120	40	30,000	10,000
University of California, Berkeley, Cal	Benjamin Ide Wheeler, LL. D	1869	150,000	1,402	320	779	779	328,000	110,000
Colorado Agricultural College, Fort Collins, Colo	Charles A. Lory, LL. D	1879	90,000	45,000	.....	1,818	472	40,754	50,000
Connecticut Agricultural College, Storrs, Conn	Charles L. Beach, B. S	1881	180,000	0	0	875	215	15,230	1,000
Delaware College, Newark, Del	Samuel C. Mitchell, Ph. D	1834	90,000	0	0	277	200	25,900	3,700
University of Florida, Gainesville, Fla	Albert A. Murphree, LL. D	1884	90,000	0	0	604	250	34,308	5,100
Georgia State College of Agriculture and the Mechanic Arts, Athens, Ga.	Andrew M. Soule, Sc. D	1872	270,000	0	0	987	260	49,300	48,000
College of Hawaii, Honolulu, Hawaii	Arthur L. Dean, Ph. D	1908	(1)	.....	.....	91	8	22,615	27,159
University of Idaho, Moscow, Idaho	Ernest H. Lindley, Ph. D	1892	90,000	62,643	151,917	336	300	33,000	.....
University of Illinois, Urbana, Ill	Edmund J. James, LL. D	1868	480,000	0	0	1,185	949	406,119	103,027
Purdue University, Lafayette, Ind	Winthrop E. Stone, LL. D	1874	390,000	0	0	1,035	1,000	46,703	5,000
Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa.	Raymond A. Pearson, LL. D	1869	240,000	0	0	1,339	1,339	60,800	30,000
Kansas State Agricultural College, Manhattan, Kans	Henry J. Waters, LL. D	1863	90,000	7,686	0	733	550	58,650	21,000
University of Kentucky, Lexington, Ky	Henry S. Barker, LL. D	1866	330,000	0	0	265	200	28,000	3,800
Louisiana State University and Agricultural and Mechanical College, Baton Rouge, La.	Thomas D. Boyd, LL. D	1860	210,000	0	0	754	375	38,454	.....
University of Maine, Orono, Me	Robert J. Aley, LL. D	1868	210,000	0	0	473	175	56,600	.....
Maryland State College of Agriculture, College Park, Md.	Albert F. Woods, D. Agr	1859	210,000	0	0	286	200	17,500	1,000
Massachusetts Agricultural College, Amherst, Mass	Kenyon L. Butterfield, LL. D	1867	360,000	0	0	570	300	53,000	.....
Massachusetts Institute of Technology, Cambridge, Mass.	Richard C. Maclaurin, Sc. D	1865	(2)	.....	.....	.....	.....	125,355	50,248
Michigan Agricultural College, East Lansing, Mich	Frank S. Kedzie, D. Sc	1857	240,000	50,359	0	1,504	681	43,159	9,133
University of Minnesota, Minneapolis, Minn	Marion LeRoy Burton, LL. D	1851	120,000	0	14,874	2,337	.....	250,361	58,000
Mississippi Agricultural and Mechanical College, Agricultural College, Miss.	William H. Smith, B. S	1880	210,000	0	0	2,270	600	35,000	128,000
University of Missouri, Columbia, Mo	A. Ross Hill, LL. D	1841	330,000	47,287	0	888	700	211,814	56,500
Montana State College of Agriculture and Mechanic Arts, Bozeman, Mont.	James M. Hamilton, M. S	1893	140,000	67,214	35,933	400	400	15,713	3,000
University of Nebraska, Lincoln, Nebr	Samuel Avery, LL. D	1871	90,000	10,766	14,091	369	250	137,050	7,000
University of Nevada, Reno, Nev	Walter E. Clark, Ph. D	1874	90,000	0	13	338	263	33,000	15,000

New Hampshire College of Agriculture and Mechanic Arts, Durham, N. H.	Ralph D. Hetzel, LL. D	1868	150,000	0	0	523	180	35,000	13,000
Rutgers College, New Brunswick, N. J.	W. H. S. Demarest, LL. D	1864	210,000	0	0	350	214	90,000	17,000
New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex.	George E. Ladd, Ph. D	1890	150,000	91,909	0	530	175	18,133	33,487
Cornell University, Ithaca, N. Y.	Jacob G. Schurman, LL. D	1868	990,000	0	0	1,401	700	489,656	.....
North Carolina State College of Agriculture and Engineering, West Raleigh, N. C.	Wallace C. Riddick, C. E	1889	270,000	0	0	490	400	8,500	7,800
North Dakota Agricultural College, Agricultural College, N. Dak.	Edwin F. Ladd, LL. D	1891	130,000	35,843	0	943	863	26,681	2,100
Ohio State University, Columbus, Ohio	William O. Thompson, LL. D	1873	630,000	0	0	683	558	176,526	10,000
Oklahoma Agricultural and Mechanical College, Stillwater, Okla.	James W. Cantwell, A. M	1891	250,000	250,000	250,000	1,000	600	24,526	98,430
Oregon Agricultural College, Corvallis, Oreg	William J. Kerr, Sc. D	1865	90,000	920	0	350	259	40,612	92,025
Pennsylvania State College, State College, Pa	Edwin E. Sparks, LL. D	1859	780,000	0	0	748	548	63,350	50,000
University of Porto Rico, San Juan, P. R.	Paul G. Miller, Ph. D	1903	(1)	.....	.....	243	243	7,500	1,500
Rhode Island State College, Kingston, R. I.	Howard Edwards, LL. D	1890	120,000	0	0	169	60	22,540	5,000
Clemson Agricultural College, Clemson College, S. C.	Walter M. Riggs, LL. D	1893	180,000	0	0	1,544	500	18,500	12,000
South Dakota State College of Agriculture and Mechanic Arts, Brookings, S. Dak.	Ellwood C. Perisho, LL. D	1884	160,000	0	141,076	560	400	21,000	6,500
University of Tennessee, Knoxville, Tenn	Brown Ayres, LL. D	1794	300,000	0	0	1,024	500	42,600	44,000
Agricultural and Mechanical College of Texas, College Station, Texas.	William B. Bizzell, D. C. L	1876	180,000	0	0	2,416	499	11,434	10,000
Agricultural College of Utah, Logan, Utah	Elmer G. Peterson, Ph. D	1890	200,000	15,516	0	147	147	30,435	36,748
University of Vermont and State Agricultural College, Burlington, Vt.	Guy P. Benton, LL. D	1801	150,000	0	0	338	150	96,960	36,857
Virginia Agricultural and Mechanical College and Polytechnic Institute, Blacksburg, Va.	Joseph D. Eggleston, A. M	1872	300,000	0	0	484	380	28,881	78,000
State College of Washington, Pullman, Wash	Ernest O. Holland, Ph. D	1892	90,000	77,870	73,990	491	420	57,000	45,000
West Virginia University, Morgantown, W. Va	Frank B. Trotter, LL. D	1868	150,000	0	0	1,670	550	60,000	16,300
University of Wisconsin, Madison, Wis.	Charles R. Van Hise, LL. D	1850	240,000	40	161	928	529	248,000	51,000
University of Wyoming, Laramie, Wyo	Aven Nelson, Ph. D., acting	1887	90,000	74,695	34,015	1,154	150	40,000	.....
Total			11,050,000	989,150	1,103,390	39,703	19,986	3,912,769	1,432,614
Institutions for colored students.									
State Agricultural and Mechanical College for Negroes, Normal, Ala.	Walter S. Buchanan, A. M	1875	.....	.....	.....	182	90	7,500	1,300
Branch Normal College, Pine Bluff, Ark	J. G. Ish., jr., superintendent	1875	.....	.....	.....	52	30	2,050	500
State College for Colored Students, Dover, Del.	W. C. Jason, D. D	1892	.....	.....	.....	100	90	1,000	700
Florida Agricultural and Mechanical College for Negroes, Tallahassee, Fla.	Nathan B. Young, A. M	1887	.....	.....	.....	250	150	2,541	2,000
Georgia State Industrial College, Savannah, Ga	R. R. Wright, LL. D	1891	.....	.....	.....	86	51	.....	.....
Kentucky Normal and Industrial Institute for Colored Persons, Frankfort, Ky.	G. P. Russell, LL. D	1887	(2)	.....	.....	300	158	2,000	500

[1] Hawaii and Porto Rico do not participate in this grant.

[2] Entire grant given under Massachusetts Agricultural College. Income divided, two-thirds to Massachusetts Agricultural College and one-third to the Massachusetts Institute of Technology.

[3] Total grant to the State given under University of Kentucky.

TABLE 1.—*Statistics of colleges of agriculture and the mechanic arts endowed by acts of Congress approved July 2, 1862, August 30, 1890, and March 4, 1907, for 1916–17*—Continued.

Institutions.	President.	Date of opening of institution.	Acres allotted to States under act of July 2, 1862, or equivalent act.	Acres of land grant of 1862 still unsold.	Acres of other land grants still unsold.	Acres in farm and grounds.	Acres under cultivation.	Library.	
								Volumes.	Pamphlets
1	2	3	4	5	6	7	8	9	10
Institutions for colored students—Continued.									
Southern University and Agricultural and Mechanical College, Baton Rouge, La.	J. S. Clark	1880				500	240	1,370	500
Princess Anne Academy, Princess Anne, Md.	John O. Spencer, LL. D., Baltimore.	1887				118	85	1,850	1,500
Alcorn Agricultural and Mechanical College, Alcorn, Miss.	L. J. Rowan, Ph. D.	1871	[1]			1,000	260	1,000	
Lincoln Institute, Jefferson City, Mo.	Benjamin F. Allen, LL. D.	1866				80	40	4,809	1,250
Negro Agricultural and Technical College, Greensboro, N. C.	James B. Dudley, LL. D.	1894				128	100	2,500	7,000
Colored Agricultural and Normal University, Langston, Okla.	John M. Marquess, A. B.	1897				319	251	500	300
Colored Normal, Industrial, Agricultural, and Mechanical College, Orangeburg, S. C.	Robert S. Wilkinson, Ph. D.	1896	[2]			130	90	500	400
Agricultural and Industrial State Normal School for Negroes, Nashville, Tenn.	William J. Hale	1913				166	100	1,310	544
Prairie View State Normal and Industrial College, Prairie View, Tex.	I. M. Terrell, A. M., principal	1879				1,435	365	2,000	500
Hampton Normal and Agricultural Institute, Hampton, Va.		1868	[3]			1,001	735	38,342	16,450
West Virginia Collegiate Institute, Institute, W. Va.	Byrd Prillerman, A. M.	1892				83	40	775	800
Total						5,930	2,875	70,047	34,244
Grand total			11,050,000	989,150	1,103 390	45,633	22,861	3,982,816	1,466,858

[1] Total grant to the State given under Mississippi Agricultural and Mechanical College.
[2] Total grant to the State given under Clemson Agricultural College, South Carolina.
[3] Total grant to the State given under Virginia Agricultural and Mechanical College and Polytechnic Institute.

TABLE 2.—*Professors, instructors, and station staff in colleges of agriculture and the mechanic arts, 1916–17.*

Institutions.	In college of agriculture and mechanic arts.								In department of agricultural extension.				Total experiment station staff.		Total in college of agriculture and mechanic arts, excluding duplicates.		Total for entire institution, excluding duplicates.	
	In preparatory classes or schools.		In secondary schools of agriculture.		In collegiate and special classes.		Total, counting none twice.		Giving full time to extension work.		Giving part time to extension work.							
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Alabama Polytechnic Institute					78	0	78	0	12	3	9	0	25	0	92	3	92	3
University of Arizona					16	0	16	0	3	0	1	0	16	0	25	0	53	13
University of Arkansas					32	2	32	2	16	4	14	1	18	0	48	6	127	18
University of California			(1)	(1)	166	3	166	3	35	3	69	2	111	4	216	4	611	98
Colorado Agricultural College			25	11	52	17	61	28	6	2			30	2	82	25	86	28
Connecticut Agricultural College			14	6	29	7	29	7	8	2	2	0	11	0	44	9	44	9
Delaware College					40	7	40	7	1	1	2	0	12	0	43	8	43	8
University of Florida	6	0			28	0	32	0	5	1	12	0	13	0	49	0	63	4
Georgia State College of Agriculture					25	0	25	0	26	2	10	0			51	2	51	2
College of Hawaii					15	4	15	4					15	4	15	4	15	4
University of Idaho			25	1	46	1	46	2	5	3	5	2	10	5	56	7	85	16
University of Illinois					93	21	93	21	4	2	10	4	103	1	127	24	127	24
Purdue University, Indiana					205	14	205	14	24	5	6	0	63	1	277	20	277	20
Iowa State College of Agriculture and Mechanic Arts			28	13	252	70	275	82	37	10	24	1	79	1	379	94	379	94
Kansas State Agricultural College			40	17	228	69	229	71	30	12	7	0	136	5	264	73	264	73
University of Kentucky					78	10	78	10	7	1	1	0	42	1	49	2	117	12
Louisiana State University and Agricultural and Mechanical College	3	2			62	11	65	13	17	6	10	0	28	2	100	18	122	32
University of Maine					59	8	59	8	5	3	5	1	20	5	30	9	89	17
Maryland State College of Agriculture	8	0			38	0	38	0	8	2	8	0	22	0	67	2	67	2
Massachusetts Agricultural College					73	1	73	1	14	3	30	0	38	0	111	4	111	4
Massachusetts Institute of Technology					328	3	328	3							328	3	328	3
Michigan Agricultural College					153	24	153	24	20	5			45	3	205	31	205	31
University of Minnesota			42	35	107	6	149	41	14	6	0	0	35	3	198	50	546	70
Mississippi Agricultural and Mechanical College			18		82	10	82	10	14	4	4		22	1	122	15	122	15
University of Missouri					60	5	60	5	20	6	5	0	58	2	77	8	212	12
Montana State College of Agriculture and Mechanic Arts	4	10	21	2	38	12	44	14	8	2			24	1	69	17	76	19
University of Nebraska			59	26	47	10	60	26	12	6	6	0	27	0	78	32	221	73

[1] Secondary and collegiate not segregated.

TABLE 2.—*Professors, instructors, and station staff in colleges of agriculture and the mechanic arts, 1916–17*—Continued.

Institutions.	In college of agriculture and mechanic arts.								In department of agricultural extension.				Total experiment station staff.		Total in college of agriculture and mechanic arts, excluding duplicates.		Total for entire institution, excluding duplicates.	
	In preparatory classes or schools.		In secondary schools of agriculture.		In collegiate and special classes.		Total, counting none twice.		Giving full time to extension work.		Giving part time to extension work.							
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
University of Nevada					18	5	18	5	5	3	2	0	15	0	29	10	49	16
New Hampshire College of Agriculture and Mechanic Arts			28	0	59	4	59	4	13	8	14	2	8	0	35	10	94	14
Rutger's College, New Jersey	10	8			89	0	99	8	11	3	11	0	58	2	157	13	157	13
New Mexico College of Agriculture and Mechanic Arts	3	3			26	2	29	5	5	1	5	0	20	0	39	6	39	6
Cornell University, New York					240	30	240	30	30	4	3	1	47	1	241	31	852	48
North Carolina State College of Agriculture and Engineering					61	0	61	0	2	0	9	0	72	0	124	0	124	0
North Dakota Agricultural College	15	7	28	8	37	8	47	15	7	3	14	6	25	1	84	24	84	24
Ohio State University					417	44	417	44	22	13	14	0			453	57	467	61
Oklahoma Agricultural and Mechanical College	28	19			58	10	69	19	14	5			25	0	39	5	39	5
Oregon Agricultural College					114	26	114	26	14	2	14	2	32	0	141	28	219	60
Pennsylvania State College					251	14	251	14	19	3			17	0	287	17	287	17
University of Porto Rico	25	14			24	12	32	15							32	15	32	15
Rhode Island State College			4	1	28	7	28	7	4	1			9	2	39	10	39	10
Clemson Agricultural College, South Carolina					70	0	70	0	11	0	5	0	20	0	83	0	137	0
South Dakota State College of Agriculture and Mechanic Arts	5	4	28	12	43	10	49	18	8	2	4	0	16	0	71	20	71	20
University of Tennessee					48	7	48	7	19	12	6	0	24	2	69	19	224	50
Agricultural and Mechanical College of Texas					108	0	108	0	49	18			65	3	219	18	219	18
Agricultural College of Utah	10	5	14	3	57	14	71	17	9	6			22	1	80	24	80	24
University of Vermont and State Agricultural College					30	2	30	2	5	2	5	0	17	1	54	5	134	13
Virginia Agricultural and Mechanical College and Polytechnic Institute					53	0	53	0	13	3	1	0	20	0	37	0	37	0
State College of Washington	2	1			40	1	42	2	9	6	21	1	24	1	72	9	140	49
West Virginia University					39	4	39	4	13	4	12	0	43	2	58	6	58	6
University of Wisconsin					87	18	87	18	4	4	26	2	34	2	110	22	500	77
University of Wyoming	7	2			26	27	27	8	4	2	6	1	15	0	37	10	53	28
Total	126	75	374	135	4,531	560	4,697	666	631	205	412	26	1,631	59	5,792	829	8,618	1,282

	classes.																	
State Agricultural and Mechanical College for Negroes, Alabama	7	6	8	8	4	1	16	13	.....	.....	.....	.....	.....	.....	16	13	16	13
Branch Normal College, Arkansas	6	2	5	3	1	0	12	5	.....	.....	.....	.....	.....	.....	12	5	12	5
State College for Colored Students, Delaware	2	2	4	2	6	2	6	2	.....	.....	.....	.....	.....	.....	6	2	6	2
Florida Agricultural and Mechanical College for Negroes	3	8	8	7	10	2	21	17	.....	.....	.....	.....	.....	.....	21	17	21	17
Georgia State Industrial College	5	0	10	2	5	0	20	2	.....	.....	.....	.....	.....	.....	20	2	20	2
Kentucky Normal and Industrial Institute for Colored Persons	7	4	4	4	10	7	10	7	.....	.....	.....	.....	.....	.....	10	7	10	7
Southern University and Agricultural and Mechanical College, Louisiana	2	5	7	6	7	1	16	12	.....	.....	.....	.....	.....	.....	16	12	16	12
Princess Anne Academy, Maryland	4	2	4	2	0	0	8	4	.....	.....	.....	.....	.....	.....	8	4	8	4
Alcorn Agricultural and Mechanical College, Mississippi	5	0	10	4	6	0	21	4	.....	.....	.....	.....	.....	.....	21	4	21	4
Lincoln Institute, Missouri	0	2	7	3	8	13	15	18	.....	.....	.....	.....	.....	.....	15	18	15	18
Negro Agricultural and Technical College, North Carolina	22	0	11	0	16	0	22	0	.....	.....	.....	.....	.....	.....	22	0	22	0
Colored Agricultural and Normal University, Oklahoma	8	8	4	2	4	0	16	10	.....	.....	.....	.....	.....	.....	16	10	16	10
Colored Normal, Industrial, Agricultural, and Mechanical College, South Carolina	4	9	12	2	8	2	23	10	.....	.....	.....	.....	.....	.....	23	10	23	10
Agricultural and Industrial State Normal School for Negroes, Tennessee	8	7	8	8	0	0	16	15	.....	.....	.....	.....	.....	.....	16	15	16	15
Prairie View State Normal and Industrial College, Texas	.....	.....	16	7	10	4	26	11	.....	.....	.....	.....	.....	.....	26	11	30	17
Hampton Normal and Agricultural Institute, Virginia	.....	.....	.....	.....	61	69	61	69	.....	.....	.....	.....	.....	.....	61	69	61	69
West Virginia Collegiate Institute	9	3	10	5	3	1	16	10	.....	.....	.....	.....	.....	.....	16	10	16	10
Total	92	58	128	65	159	102	325	209	.....	.....	.....	.....	.....	.....	325	209	329	215
Grand total	218	133	.....	.....	4,690	662	5,022	875	631	205	412	26	1,631	59	6,117	1,038	8,949	1,497

TABLE 3.—*Students in colleges of agriculture and the mechanic arts, 1916–17.*

Institutions.	In college of agriculture and mechanic arts (or similar divisions of the institution).																Enrollment of summer school students in all other departments.		Number in all other departments of the institution.		Grand total enrollment, excluding duplicates.	
	In preparatory classes or schools.		In secondary schools of agriculture and in noncollegiate classes.		In degree course (including special students in college courses).		In one or two year collegiate courses.		In graduate courses.		In short or winter courses.		In summer schools (college of agriculture and mechanic arts only).		Total, counting none twice.							
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		23
Alabama Polytechnic Institute	.....	.....	.....	.....	818	16	80	0	16	0	.....	.....	225	323	1,139	339	.....	.....	.....	.....	1,139	339
University of Arizona	.....	.....	.....	.....	44	2	2	0	.....	.....	3	0	.....	.....	49	3	.....	.....	408	183	457	186
University of Arkansas	.....	.....	.....	.....	238	16	.....	.....	.....	.....	.....	.....	.....	.....	238	16	41	120	404	325	607	369
University of California	.....	.....	314	0	1,285	20	.....	.....	45	17	250	0	241	0	2,135	37	949	2,785	1,998	2,516	4,518	5,338
Colorado Agricultural College	.....	.....	300	82	444	237	.....	.....	.....	.....	103	97	37	29	884	455	.....	.....	47	140	931	595
Connecticut Agricultural College	.....	.....	69	12	133	9	.....	.....	.....	.....	30	2	.....	.....	232	23	10	488	.....	.....	242	511
Delaware College	.....	.....	.....	.....	226	110	.....	.....	1	0	.....	.....	14	62	241	172	11	87	.....	.....	252	259
University of Florida	.....	.....	.....	.....	77	0	.....	.....	5	0	33	0	.....	.....	115	0	167	372	471	0	753	372
Georgia State College of Agriculture	.....	.....	29	0	386	0	15	0	10	0	201	45	6	0	647	45	.....	.....	.....	.....	647	45
College of Hawaii	.....	.....	.....	.....	51	57	.....	.....	2	0	.....	.....	.....	.....	53	57	.....	.....	.....	.....	53	57
University of Idaho	.....	.....	66	5	197	20	.....	.....	12	9	19	0	.....	.....	294	34	63	253	163	225	506	501
University of Illinois	.....	.....	.....	.....	2,216	173	.....	.....	135	0	.....	.....	163	12	2,355	178	547	425	2,603	1,192	5,205	1,645
Purdue University, Indiana	.....	.....	.....	.....	1,752	1	42	1	87	14	118	17	27	27	2,026	60	.....	.....	141	249	2,109	306
Iowa State College of Agriculture and Mechanic Arts	.....	.....	322	100	1,793	591	43	21	82	33	.....	.....	455	228	2,695	973	.....	.....	.....	.....	2,695	973
Kansas State Agricultural College	.....	.....	289	133	1,180	816	.....	.....	44	24	433	0	219	367	2,017	1,322	.....	.....	.....	.....	2,017	1,322
University of Kentucky	.....	.....	.....	.....	692	244	27	4	53	9	.....	.....	84	54	801	295	34	0	225	0	982	295
Louisiana State University and Agricultural and Mechanical College	26	41	11	9	403	0	.....	.....	14	0	.....	.....	.....	.....	454	50	321	289	280	184	920	458
University of Maine	.....	.....	45	0	646	61	0	8	.....	.....	24	0	.....	.....	715	69	83	52	310	129	1,064	236
Maryland State College of Agriculture	22	0	.....	.....	192	1	35	1	17	0	73	65	.....	.....	319	67	9	179	2	0	330	246
Massachusetts Agricultural College	.....	.....	.....	.....	596	27	.....	.....	.....	.....	100	8	27	145	723	180	.....	.....	.....	.....	723	180
Massachusetts Institute of Technology	.....	.....	.....	.....	1,676	10	.....	.....	45	0	.....	.....	550	0	1,884	16	.....	.....	.....	.....	1,884	16

Michigan Agricultural College					1,162	359			24	2	295	11	166	60	1,558	400	13	0			1,571	400
University of Minnesota			761	277	942	332			51	3	238	1,007	96	31	2,088	1,650	256	461	6,675	3,842	9,919	5,953
Mississippi Agricultural and Mechanical College			80		585				6				172		671		140	304	609		1,420	304
University of Missouri					520	35			38	4	197	7	99	7	717	42	518	722	2,106	1,512	2,800	1,549
Montana State College of Agriculture and Mechanic Arts	17	17	172	56	233	121			3	2			11	60	431	256					431	256
University of Nebraska			551	239	310	282			25	0	277	0			955	521	341	406	2,634	1,676	3,141	2,264
University of Nevada					261	162									261	162	12	111	1	40	274	313
New Hampshire College of Agriculture and Mechanic Arts			65	1	126	0			3	0	6	0			200	1			321	144	521	145
Rutgers College, New Jersey	170	33			510	0	2	0	26	1	120	20	172	453	1,000	507					1,000	507
New Mexico College of Agriculture and Mechanic Arts	86	35	11	11	74	29					12	8			174	72					174	72
Cornell University, New York					2,219	301	33	10			261	21	108	274	2,514	555	607	721	2,210	392	5,331	1,668
North Carolina State College of Agriculture and Engineering					533	0	97	0	36	0	62	0	14	0	742	0	77	0			819	0
North Dakota Agricultural College	80	57	188	22	155	77			1	0	215	11	9	5	647	170	75	95			717	265
Ohio State University					1,669	261	244	0	178	55	185	2	201	37	2,306	312	492	451	1,904	1,032	4,536	1,652
Oklahoma Agricultural and Mechanical College	213	152	100	88	443	206			6	1	82	3			844	450	166	357			925	679
Oregon Agricultural College			115	2	830	5			47	0	1,002	608			1,994	615	144	223	256	566	2,394	1,404
Pennsylvania State College					2,061	191	174	0	73	7	120	15	201	903	2,619	1,109					2,619	1,109
University of Porto Rico	270	180	43	50	55	108									368	338			62	6	430	344
Rhode Island State College					271	42			5	1	17	0			293	43					293	43
Clemson Agricultural College, South Carolina					815	0	37	0	1	0			123	1	976	1					976	1
South Dakota State College of Agriculture and Mechanic Arts	45	36	204	61	234	142			5	0	57	0	23	18	553	244	13	101			559	337
University of Tennessee					355	1			2	3	113	2	40	23	502	29	324	1,015	523	199	1,315	1,227
Agricultural and Mechanical College of Texas			487	0	749	0			6	0			21	0	1,263	0	142	0	396	0	1,767	0
Agricultural College of Utah					284	167	113	74	22	7	186	61	11	0	419	248	67	178			486	426
University of Vermont and State Agricultural College					175	41					31	1			206	42	50	311	286	138	567	487
Virginia Agricultural and Mechanical College and Polytechnic Institute					438	0	74	0	15	0	117	0	86	0	730	0					730	0
State College of Washington			620	579	517	3			24	1	153	46	61	13	1,287	740			60	39	1,347	779
West Virginia University					316	45			6	0	146	11	58	2	517	57	218	456			995	759
University of Wisconsin					1,063	282	102	2	117	20	473	3	412	139	1 863	419	1,156	1,431	2,376	1,509	5,001	3,120
University of Wyoming					55	23					3	3			58	26	44	263	107	196	196	455
Total	929	551	4,842	1,727	33,005	5,626	1,120	121	1,291	213	5,755	2,074	4,132	3,275	48,752	13,220	7,090	12,656	27,578	16,434	81,286	40,767

TABLE 3.—*Students in colleges of agriculture and the mechanic arts, 1916–17*—Continued.

Institutions.	In college of agriculture and mechanic arts (or similar divisions of the institution).																Enrollment of summer school students in all other departments.		Number in all other departments of the institution.		Grand total enrollment, excluding duplicates.	
	In preparatory classes or schools.		In secondary schools of agriculture and in noncollegiate classes.		In degree course (including special students in college courses).		In one or two year collegiate courses.		In graduate courses.		In short or winter courses.		In summer schools (college of agriculture and mechanic arts only).		Total, counting none twice.							
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Institutions for colored students.																						
			Industrial.																			
State Agricultural and Mechanical College for Negroes, Alabama	157	171	6	16	8	6	.....	.....	.....	.....	11	20	3	32	185	245	.....	.....	.....	.....	185	245
Branch Normal College, Arkansas	143	202	10	20	0	2	.....	.....	.....	.....	.....	.....	28	165	181	389	.....	.....	.....	.....	181	389
State College for Colored Students, Delaware	19	8	.....	.....	34	28	.....	.....	.....	.....	.....	.....	3	17	56	53	.....	.....	.....	.....	56	53
Florida Agricultural and Mechanical College for Negroes	85	107	31	35	37	16	.....	.....	.....	.....	.....	.....	6	105	159	263	.....	.....	.....	.....	159	263
Georgia State Industrial College	343	112	.....	.....	50	12	.....	.....	.....	.....	.....	.....	.....	.....	393	124	.....	.....	.....	.....	393	124
Kentucky Normal and Industrial Institute for Colored Persons	48	55	.....	.....	48	108	.....	.....	.....	.....	1	25	13	33	110	221	.....	.....	.....	.....	110	221
Southern University and Agricultural and Mechanical College, Louisiana	259	277	.....	.....	17	53	.....	.....	1	0	162	78	21	143	460	551	.....	.....	.....	.....	460	551
Princess Anne Academy, Maryland	47	68	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	22	53	90	.....	.....	.....	.....	53	90
Alcorn Agricultural and Mechanical College, Mississippi	85	31	190	101	124	28	.....	.....	.....	.....	.....	.....	.....	.....	399	160	.....	.....	.....	.....	399	160
Lincoln Institute, Missouri	166	166	.....	.....	17	34	.....	.....	.....	.....	.....	.....	.....	.....	183	200	.....	.....	.....	.....	183	200
Negro Agricultural and Technical College, North Carolina	175	0	.....	.....	50	0	.....	.....	.....	.....	14	0	31	222	270	222	.....	.....	.....	.....	270	222
Colored Agricultural and Normal University, Oklahoma	166	278	.....	.....	20	45	.....	.....	.....	.....	.....	.....	40	199	226	522	.....	.....	.....	.....	226	522
Colored Normal, Industrial, Agricultural, and Mechanical College, South Carolina	271	314	21	24	46	44	.....	.....	.....	.....	.....	.....	19	274	357	656	.....	.....	.....	.....	357	656

Agricultural and Industrial State Normal School for Negroes, Tennessee	195	308	.....	.....	11	31	.....	2	0	.....	.....	114	530	320	869	.....	.....	.....	320	869
Prairie View State Normal and Industrial School, Texas	345	635	.....	.....	.....	.....	.....	.....	.....	.....	.....	244	406	599	1,041	.....	.....	.....	599	1,041
Hampton Normal and Agricultural Institute, Virginia	230	185	350	169	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Virginia Collegiate Institute	144	198	14	61	23	11	.....	.....	.....	.....	.....	51	407	631	761	.....	.....	.....	631	761
Total	2,878	3,115	622	426	485	418	.....	3	0	188	123	579	2,555	175	228	.....	.....	.....	175	228
														4,757	6,595	.....	.....	.....	4,757	6,595
Grand total	3,807	3,666	.....	.....	33,490	6,044	1,120	121	1,294	213	5,943	2,197	4,711	5,830	53,509	19,815	7,090	12,656	27,578	16,434	86,043	47,362

TABLE 4.—*Undergraduate students in four-year college courses in colleges of agriculture and the mechanic arts, 1916–17.*

Institutions.	Agriculture.	Horticulture.	Forestry.	Veterinary science.	Mechanical engineering.	Civil engineering.	Electrical engineering.	Mining engineering.	Chemical engineering.	Railway engineering.	Sanitary engineering.	Textile engineering.	General engineering.	Architecture.	Household economy.	Chemistry.	Pharmacy.	General science.	Military science and tactics.	
																			Whole number in military drill.	Number in Reserve Officers' Training Course.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Alabama Polytechnic Institute	453	.....	.....	[1] 4	241	45	157	9	20	.....	.....	.....	.....	13	.....	.....	4	30	800	800
University of Arizona	48	.....	.....	.....	36	6	12	27	12	.....	.....	.....	.....	2	3	12	.....	.....	147	100
University of Arkansas	77	.....	.....	.....	32	44	57	1	4	.....	.....	.....	3	.....	16	.....	.....	.....	229	229
University of California	546	[2]	[2]	[2]	328	168	[3]	126	137	[4]	[4]	.....	.....	56	.....	[5]	[1] 92	.....	1,648	[6]
Colorado Agricultural College	246	8	3	71	14	26	8	.....	.....	.....	.....	.....	35	.....	230	.....	.....	9	649	[6]
Connecticut Agricultural College	124	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	202	20
Delaware College	54	.....	.....	.....	14	25	31	.....	.....	.....	.....	.....	5	.....	26	.....	.....	.....	219	[6]
University of Florida	77	.....	.....	.....	7	9	8	.....	1	.....	.....	.....	35	.....	.....	.....	.....	.....	183	6
Georgia State College of Agriculture	180	.....	5	.....	.....	16	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	483	35
College of Hawaii	3	.....	.....	.....	4	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	[7]	[7]
University of Idaho	83	.....	29	.....	10	14	19	19	11	.....	.....	.....	.....	.....	46	.....	.....	.....	221	17
University of Illinois	1,041	.....	.....	.....	286	204	274	31	154	38	28	.....	.....	311	396	95	.....	1,163	2,106	25
Purdue University, Indiana	644	.....	.....	.....	346	210	317	.....	198	.....	.....	.....	.....	.....	219	.....	21	292	958	[6]
Iowa State College of Agriculture and Mechanic Arts	883	24	48	133	147	151	218	8	49	.....	.....	.....	141	.....	534	.....	.....	112	2,000	[6]
Kansas State Agricultural College	555	.....	.....	78	50	32	64	.....	.....	.....	.....	.....	154	16	616	.....	.....	185	909	.....
University of Kentucky	173	.....	.....	.....	169	71	.....	26	.....	.....	.....	.....	.....	.....	87	.....	.....	.....	300	.....
Louisiana State University and Agricultural and Mechanical College	176	.....	.....	.....	31	13	26	.....	13	.....	.....	.....	86	.....	.....	.....	.....	.....	327	327
University of Maine	150	12	41	.....	82	76	112	.....	76	.....	.....	.....	18	.....	57	54	2	.....	496	38
Maryland State College of Agriculture	64	25	.....	.....	14	22	21	.....	.....	.....	.....	.....	.....	.....	.....	27	.....	1	183	.....
Massachusetts Agricultural College	586	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	500	500
Massachusetts Institute of Technology	.....	741	[8]	65	340	225	200	67	267	.....	40	.....	17	160	.....	63	.....	4	487	0
Michigan Agricultural College	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	356	.....	359	.....	.....	.....	813	.....
University of Minnesota	382	.....	39	.....	106	103	168	80	103	.....	.....	.....	88	65	325	.....	107	2,481	1,500	[6]
Mississippi Agricultural and Mechanical College	616	.....	.....	.....	32	25	50	.....	.....	.....	.....	.....	197	.....	.....	.....	.....	106	1,252	28
University of Missouri	536	.....	[9] 19	.....	9	31	28	125	19	.....	.....	.....	354	.....	[10]	.....	.....	1,924	836	[6]
Montana State College of Agriculture and Mechanic Arts	88	.....	.....	.....	20	16	50	.....	6	.....	.....	.....	.....	8	73	21	.....	.....	295	30

University of Nebraska	310	.....	.....	.....	82	94	113	.....	5	.....	.....	.....	15	21	282	.....	3	.....	1,007	1,007
University of Nevada	58	.....	.....	.....	69	17	[8]	43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	174	174
New Hampshire College of Agriculture and Mechanic Arts	75	12	6	.....	27	.....	59	.....	57	.....	.....	.....	.....	.....	64	.....	.....	209	441	30
Rutgers College, New Jersey	55	.....	.....	.....	17	22	22	.....	.....	.....	.....	.....	.....	.....	.....	45	.....	123	331	331
New Mexico College of Agriculture and Mechanic Arts	41	.....	.....	.....	6	4	11	.....	.....	.....	.....	.....	.....	.....	26	.....	.....	12	125	.....
Cornell University, New York	1,565	.....	.....	157	955	409	.....	.....	.....	.....	.....	.....	.....	168	.....	.....	.....	.....	1,807	1,807
North Carolina State College of Agriculture and Engineering	249	.....	.....	.....	68	69	89	.....	.....	.....	.....	73	.....	.....	.....	21	.....	.....	500	400
North Dakota Agricultural College	67	.....	.....	16	13	9	.....	.....	4	.....	.....	.....	.....	1	52	12	20	37	252	.....
Ohio State University	664	[2]	31	[11] 126	175	167	207	40	177	.....	.....	.....	20	31	252	.....	28	.....	1,928	[6]
Oklahoma Agricultural and Mechanical College	142	.....	.....	12	17	12	23	.....	.....	.....	.....	.....	73	13	117	.....	.....	52	400	62
Oregon Agricultural College	534	[2]	84	[2]	73	8	78	93	.....	.....	.....	.....	.....	.....	377	.....	50	.....	942	131
Pennsylvania State College	234	79	28	.....	104	79	174	111	23	8	11	.....	.....	27	129	246	.....	.....	1,142	.....
University of Porto Rico	20	.....	.....	.....	4	9	6	.....	1	.....	.....	.....	19	.....	.....	.....	.....	.....	311	.....
Rhode Island State College	70	.....	.....	.....	17	21	27	.....	24	.....	.....	.....	58	.....	38	.....	.....	.....	297	43
Clemson Agricultural College, South Carolina	446	.....	.....	.....	87	25	[3]	.....	.....	.....	.....	18	138	15	.....	16	.....	.....	851	127
South Dakota State College of Agriculture and Mechanic Arts	114	.....	.....	.....	8	12	23	.....	.....	.....	.....	.....	.....	.....	101	.....	30	65	368	166
University of Tennessee	204	.....	.....	.....	10	7	22	.....	8	.....	.....	.....	100	.....	8	.....	.....	.....	306	78
Agricultural and Mechanical College of Texas	354	.....	.....	9	63	101	124	.....	29	.....	.....	16	11	31	.....	.....	.....	26	1,242	950
Agricultural College of Utah	203	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	125	.....	.....	90	256	[6]
University of Vermont and State Agricultural College	89	.....	.....	.....	25	29	32	.....	.....	.....	.....	.....	.....	.....	.....	40	.....	77	238	.....
Virginia Agricultural and Mechanical College and Polytechnic Institute	137	7	.....	2	81	31	135	10	9	.....	.....	.....	.....	.....	.....	28	.....	16	445	430
State College of Washington	287	33	14	30	35	18	63	27	19	.....	.....	.....	.....	26	159	39	12	139	686	49
West Virginia University	186	.....	.....	.....	37	55	70	12	4	.....	.....	.....	.....	.....	39	.....	.....	.....	580	22
University of Wisconsin	428	.....	.....	.....	107	77	139	13	63	.....	.....	.....	242	.....	276	112	8	1,793	1,200	[6]
University of Wyoming	31	.....	.....	.....	10	6	5	3	.....	.....	.....	.....	.....	.....	23	.....	.....	.....	132	3
Total	14,348	941	347	773	4,417	2,822	3,256	871	1,505	46	79	107	2,165	964	5,055	831	377	8,959	33,704	8,035

[1] Three-year course.
[2] Included in agriculture.
[3] Included in mechanical engineering.
[4] Included in civil engineering.
[5] Included in chemical engineering.
[6] Course not organized until 1917.
[7] Instruction in military science and tactics not offered.
[8] Included in horticulture.
[9] Five-year course.
[10] Included in agriculture and general science.
[11] Sixty-four in first 2 years of the 4-year curriculum, 62 in 3-year curriculum.

TABLE 5.—*Students in various courses in colleges of agriculture and the mechanic arts for the colored race, 1916–17.*

Institutions.	Agriculture.	Carpentry.	Machine shop.	Blacksmithing.	Shoemaking.	Broom making.	Wheelwrighting.	Bricklaying.	Painting.	Printing.	Harness making.	Tailoring.	Plastering.	Sewing.	Cooking.	Laundering.	Nursing.	Millinery.	Military drill.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
State Agricultural and Mechanical College for Negroes, Alabama	127	10	6	7	5	0	7	6	2	8	0	8	6	68	60	20	3	0	82
Branch Normal College, Arkansas	38	55	7	42	0	0	8	0	0	0	0	0	0	176	130	77	2	19	0
State College for Colored Students, Delaware	6	10	4	5	0	0	0	0	0	6	0	0	0	16	16	12	0	0	50
Florida Agricultural and Mechanical College for Negroes	188	14	15	8	0	1	10	0	13	14	0	22	0	132	132	5	67	23	0
Georgia State Industrial College	41	42	0	41	81	0	0	80	12	0	0	74	0	43	43	6	0	0	0
Kentucky Normal and Industrial Institute for Colored Persons	141	32	20	0	0	0	0	0	10	18	0	0	0	160	133	4	0	10	103
Southern University and Agricultural and Mechanical College, Louisiana	80	31	8	14	0	25	14	28	0	5	0	0	28	137	124	20	20	0	0
Princess Anne Academy, Maryland	10	12	0	13	0	0	1	0	0	9	0	0	0	32	64	60	0	0	0
Alcorn Agricultural and Mechanical College, Mississippi	296	65	0	61	50	0	61	0	13	0	50	0	0	91	53	55	12	0	0
Lincoln Institute, Missouri	32	45	36	35	16	0	0	14	0	0	0	34	14	117	78	0	0	6	0
Negro Agricultural and Technical College, North Carolina	102	55	47	60	0	10	0	52	0	0	0	0	(1)	0	0	0	0	0	70
Colored Agricultural and Normal University, Oklahoma	259	11	0	9	0	0	0	0	0	0	0	0	0	239	239	0	0	2	0
Colored Normal, Industrial, Agricultural, and Mechanical College, South Carolina	22	51	51	41	48	0	28	66	28	10	48	42	66	186	186	250	12	0	400
Agricultural and Industrial State Normal School for Negroes, Tennessee	382	43	0	5	0	0	0	27	22	0	0	0	0	168	73	0	0	0	0
Prairie View State Normal and Industrial College, Texas	65	70	11	35	26	48	35	0	0	30	26	31	0	209	180	130	0	18	0
Hampton Normal and Agricultural Institute, Virginia	245	45	19	14	4	0	6	31	8	13	0	23	(1)	166	166	84	0	0	580
West Virginia Collegiate Institute	20	50	0	20	0	0	0	18	17	23	0	0	18	175	140	0	0	0	136
Total	2,054	641	224	410	230	83	164	322	125	136	124	234	132	2,115	1,817	723	116	70	1,415

[1] Included in bricklaying.

TABLE 6.—*Number of degrees conferred by colleges of agriculture and the mechanic arts, 1916–17.*

Institutions.	Undergraduate courses.										Graduate courses.									
	Agricultural courses.		Mechanical courses.		Home economics.		All other courses.		Total.		Agricultural courses.		Mechanical courses.		Home economics.		All other courses.		Total.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
1	2	3	4	5	6	7	8		10	11	12	13	14	15	16	17	18	19	20	21
Alabama Polytechnic Institute	44	0	51	0	.....	.....	44	4	139	4	1	0	7	0	.....	.....	3	0	11	0
University of Arizona	8	0	2	0	0	2	15	0	25	2	0	1	.....	.....	.....	.....	2	1	2	2
University of Arkansas	11	0	.....	.....	0	6	36	18	47	24	.....	.....	.....	.....	.....	.....	3	0	3	0
University of California	102	2	103	0	.....	.....	407	352	612	354	11	2	5	0	.....	.....	96	79	112	81
Colorado Agricultural College	27	0	16	0	0	36	18	4	61	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut Agricultural College	24	0	.....	.....	.....	.....	.....	.....	24	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delaware College	9	0	8	0	.....	.....	5	0	22	0	.....	.....	.....	.....	.....	.....	1	0	1	0
University of Florida	16	0	1	0	.....	.....	22	0	39	0	1	0	.....	.....	.....	.....	3	0	4	0
Georgia State College of Agriculture	19	0	2	0	.....	.....	17	0	38	0	1	0	.....	.....	.....	.....	.....	.....	1	0
College of Hawaii	.....	.....	1	0	.....	.....	2	0	3	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
University of Idaho	18	2	7	0	0	3	26	14	51	19	1	0	.....	.....	.....	.....	.....	.....	1	0
University of Illinois	189	4	210	1	0	85	372	128	771	218	25	0	27	0	0	4	98	32	150	36
Purdue University, Indiana	128	0	172	0	.....	.....	34	45	334	45	4	0	21	0	.....	.....	6	2	31	2
Iowa State College of Agriculture and Mechanic Arts	175	0	132	0	0	91	0	11	307	102	31	0	9	0	.....	.....	17	2	57	2
Kansas State Agricultural College	77	0	28	0	0	105	23	8	128	113	6	0	6	0	.....	.....	.....	.....	12	0
University of Kentucky	36	1	18	19	0	4	57	1	111	25	.....	.....	5	1	.....	.....	5	0	10	1
Louisiana State University and Agricultural and Mechanical College	24	0	19	0	.....	.....	49	27	92	27	1	0	.....	.....	.....	.....	5	5	6	5
University of Maine	32	0	56	1	0	8	7	0	95	9	2	0	2	0	.....	.....	.....	.....	4	0
Maryland State College of Agriculture	16	0	9	0	.....	.....	6	0	31	0	.....	.....	.....	.....	.....	.....	1	0	1	0
Massachusetts Agricultural College	103	1	.....	.....	.....	.....	.....	.....	103	1	8	0	.....	.....	.....	.....	.....	.....	8	0
Massachusetts Institute of Technology	.....	.....	329	1	.....	.....	.....	.....	329	1	.....	.....	39	0	.....	.....	.....	.....	39	0
Michigan Agricultural College	139	0	65	0	0	52	7	0	211	52	12	0	.....	.....	.....	.....	.....	.....	12	0
University of Minnesota	74	0	81	0	0	55	369	213	524	268	11	0	1	0	.....	.....	51	27	63	27
Mississippi Agricultural and Mechanical College	92	.....	38	.....	.....	.....	16	.....	146	.....	2	.....	1	.....	.....	.....	1	.....	4	.....
University of Missouri	92	7	.....	.....	.....	.....	255	108	347	115	.....	.....	.....	.....	.....	.....	49	14	49	14
Montana State College of Agriculture and Mechanic Arts	18	0	13	0	0	8	6	5	37	13	.....	.....	2	0	.....	.....	.....	.....	2	0
University of Nebraska	44	0	36	0	0	31	170	147	250	178	2	0	.....	.....	.....	.....	25	14	27	14
University of Nevada	3	0	.....	.....	0	1	15	20	18	21	.....	.....	.....	.....	.....	.....	2	1	2	1

TABLE 6.—*Number of degrees conferred by colleges of agriculture and the mechanic arts, 1916–17*—Continued.

Institutions.	Undergraduate courses.										Graduate courses.									
	Agricultural courses.		Mechanical courses.		Home economics.		All other courses.		Total.		Agricultural courses.		Mechanical courses.		Home economics.		All other courses.		Total.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
New Hampshire College of Agriculture and Mechanic Arts	18	0	7	0	0	13	33	12	58	25	1	0	.....	.....	.....	.....	2	0	3	0
Rutgers College, New Jersey	16	0	31	0	.....	.....	30	0	77	0	7	0	.....	.....	.....	.....	.....	.....	7	0
New Mexico College of Agriculture and Mechanic Arts	9	0	4	0	0	2	2	0	15	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cornell University, New York	266	50	167	0	.....	.....	411	76	844	126	22	0	4	0	.....	.....	68	15	94	15
North Carolina State College of Agriculture and Engineering	35	0	8	0	.....	.....	37	0	80	0	6	0	.....	.....	.....	.....	1	0	7	0
North Dakota Agricultural College	15	0	2	0	0	15	13	3	30	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ohio State University	151	0	117	0	0	66	377	156	645	222	.....	.....	.....	.....	.....	.....	91	15	91	15
Oklahoma Agricultural and Mechanical College	30	0	14	0	0	23	22	22	66	45	.....	.....	.....	.....	.....	.....	3	0	3	0
Oregon Agricultural College	76	1	63	0	0	72	22	11	161	84	8	0	1	0	.....	.....	.....	.....	9	0
Pennsylvania State College	156	0	197	0	0	12	34	6	387	18	10	0	24	0	.....	.....	0	6	34	6
University of Porto Rico	1	0	9	0	.....	.....	.....	.....	10	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rhode Island State College	10	0	20	0	0	2	5	0	35	2	1	0	.....	.....	.....	.....	1	0	2	0
Clemson Agricultural College, South Carolina	56	0	46	0	.....	.....	8	0	110	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Dakota State College of Agriculture and Mechanic Arts	22	0	6	0	0	14	2	5	30	19	1	0	.....	.....	.....	.....	2	0	3	0
University of Tennessee	32	0	9	0	.....	.....	96	22	137	22	1	0	.....	.....	.....	.....	1	3	2	3
Agricultural and Mechanical College of Texas	75	0	60	0	.....	.....	.....	.....	135	0	1	0	1	0	.....	.....	.....	.....	2	0
Agricultural College of Utah	32	0	9	0	0	18	21	1	62	19	1	0	.....	.....	.....	.....	.....	.....	1	0
University of Vermont and State Agricultural College	19	0	13	0	0	7	57	25	89	32	.....	.....	.....	.....	.....	.....	3	0	3	0
Virginia Agricultural and Mechanical College and Polytechnic Institute	24	0	38	0	.....	.....	6	0	68	0	1	0	11	0	.....	.....	.....	.....	12	0
State College of Washington	40	0	15	0	0	15	33	24	88	39	5	0	2	0	.....	.....	5	3	12	3
West Virginia University	18	1	12	0	0	1	62	26	92	28	.....	.....	.....	.....	.....	.....	4	1	4	1
University of Wisconsin	108	1	135	0	0	35	354	251	597	287	33	1	17	0	0	5	86	40	136	46
University of Wyoming	4	0	3	0	0	5	12	7	19	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	2,733	70	2,382	22	.....	787	3,615	1,752	8,730	2,631	217	4	185	1	.....	9	635	262	1,037	276

TABLE 7.—*Value of property of colleges of agriculture and the mechanic arts, 1916–17.*

Institutions.	Land-grant fund of 1862.	Other land-grant funds.	Other permanent funds.	Unsold land grant of 1862.	Other unsold land grants.	Farm and grounds.	Buildings.	Apparatus and machinery.	Library.	Live stock.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
Alabama Polytechnic Institute	$254,500					$30,000	$510,000	$100,000	$85,000	$9,650	$989,150
University of Arizona			$10,500	$450,000	$1,790,000	110,000	435,000	125,000	38,500	8,000	2,967,000
University of Arkansas	132,667					75,000	390,000	200,000	53,000	11,559	862,226
University of California	732,485	$74,962	4,653,529	11,869	800	10,870,680	[1]	2,363,752	250,000	59,153	19,017,230
Colorado Agricultural College	194,444			400,000		470,000	468,955	199,699	57,936	22,900	1,813,934
Connecticut Agricultural College	135,000		1,000			35,000	620,000	108,000	22,000	25,000	946,000
Delaware College	83,000		286,000			400,000	819,000	154,629	53,000	20,000	1,815,629
University of Florida	153,500					185,000	426,000	22,000	65,000	6,000	857,500
Georgia State College of Agriculture	242,202		20,000			585,000	625,000	84,144	68,500	19,870	1,644,716
College of Hawaii	[2]					127,926	70,597	75,415	50,662	4,437	329,037
University of Idaho	507,458	568,010		[3] 626,430	[3] 1,519,170	57,775	558,212	300,119	49,500	20,000	4,206,674
University of Illinois	649,013					1,024,247	3,416,243	1,314,670	664,439	96,505	7,165,117
Purdue University, Indiana	340,000		105,593			200,000	1,600,000	540,000	[4]	[4]	2,785,593
Iowa State College of Agriculture and Mechanic Arts	689,530		2,000			209,795	2,758,358	803,277	179,300	75,119	4,717,379
Kansas State Agricultural College	491,747			38,430		261,500	972,324	427,661	113,642	166,150	2,471,454
University of Kentucky	165,000		40,000			207,749	674,635	223,158	50,000	5,000	1,365,542
Louisiana State University and Agricultural and Mechanical College	182,313	136,000	400			177,342	573,790	171,443	49,000	400	1,290,688
University of Maine	118,300		133,750			11,000	712,056	143,268	82,013	11,492	1,211,879
Maryland State College of Agriculture	115,944					42,900	515,000	10,000	30,000	10,000	723,844
Massachusetts Agricultural College	146,000		142,000			93,419	997,872	425,732	89,300	27,165	1,921,488
Massachusetts Institute of Technology	73,000		8,131,700			2,532,867	5,308,423	2,117,378	[4]	[4]	18,163,368
Michigan Agricultural College	991,241			285,000		160,000	975,000	215,000	70,000	50,000	2,746,241
University of Minnesota	616,468	1,174,454			90,000	2,654,166	6,051,603	1,189,523	785,783	100,768	12,662,765
Mississippi Agricultural and Mechanical College	98,575	141,213				157,520	736,272	442,562	54,535	79,079	1,709,756
University of Missouri	365,881	222,000	721,458	189,148		801,385	1,987,470	704,256	423,209	66,205	5,481,012
Montana State College of Agriculture and Mechanic Arts	542,572			672,140	359,330	79,330	290,500	191,455	27,500	28,000	2,191,047
University of Nebraska	593,232	246,896		75,366	98,638	951,639	1,632,341	321,504	247,690	47,407	4,214,713
University of Nevada	107,507	49,657	150,000		16	291,290	274,978	324,785	34,688	32,845	1,265,766
New Hampshire College of Agriculture and Mechanic Arts	80,000		870,000			44,000	520,000	87,000	37,000	10,000	1,648,000
Rutgers College, New Jersey	116,000		868,456			471,000	1,030,412	160,000	86,000	20,000	2,751,868
New Mexico College of Agriculture and Mechanic Arts				241,909		40,740	170,600	150,261	42,343	6,551	652,404

[1] Included in farm and grounds.
[2] Hawaii and Porto Rico do not participate in this grant.
[3] Estimated at the minimum price of $10 per acre.
[4] Included in apparatus and machinery.

TABLE 7.—*Value of property of colleges of agriculture and the mechanic arts, 1916–17*—Continued.

Institutions.	Land-grant fund of 1862.	Other land-grant funds.	Other permanent funds.	Unsold land grant of 1862.	Other unsold land grants.	Farm and grounds.	Buildings.	Apparatus and machinery.	Library.	Live stock.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
Cornell University, New York	$688,576	.....	$13,798,551	.....	.....	$358,440	$6,532,912	$1,789,687	$853,816	(1)	$24,021,982
North Carolina State College of Agriculture and Engineering	125,000	.....	.....	.....	.....	108,310	643,535	305,115	26,643	$10,000	1,218,603
North Dakota Agricultural College	1,263,147	.....	.....	$501,798	.....	95,000	595,000	180,000	33,250	30,000	2,698,195
Ohio State University	524,177	$205,481	292,300	.....	.....	1,855,440	2,817,701	1,209,950	392,805	20,474	7,318,328
Oklahoma Agricultural and Mechanical College	.....	.....	.....	100,000	$100,000	60,000	531,767	288,816	48,000	39,000	1,167,583
Oregon Agricultural College	202,664	.....	.....	9,000	.....	438,715	877,980	251,525	116,011	45,475	1,941,370
Pennsylvania State College	500,000	17,000	101,795	.....	.....	88,107	1,939,651	632,076	102,500	40,379	3,421,508
University of Porto Rico	(2)	.....	10,412	.....	.....	38,053	135,867	70,750	47,349	6,262	308,693
Rhode Island State College	50,000	.....	.....	.....	.....	14,855	324,450	105,659	40,341	3,500	538,805
Clemson Agricultural College, South Carolina	95,900	.....	58,539	.....	.....	118,600	764,065	370,934	31,461	32,403	1,471,902
South Dakota State College of Agriculture and Mechanic Arts	[3] 391,647	(3)	.....	[3] 1,410,767	(3)	70,000	450,000	57,000	21,000	15,000	2,415,414
University of Tennessee	400,000	.....	5,000	.....	.....	749,300	455,350	187,344	67,000	35,250	1,899,244
Agricultural and Mechanical College of Texas	209,000	.....	.....	.....	.....	149,065	1,503,623	360,787	28,483	49,527	2,300,485
Agricultural College of Utah	.....	.....	.....	.....	.....	23,200	563,700	170,912	31,813	17,115	806,740
University of Vermont and State Agriculture College	135,000	100,000	828,525	.....	.....	75,000	1,150,000	122,722	163,500	9,500	2,584,247
Virginia Agricultural and Mechanical College and Polytechnic Institute	344,312	.....	.....	.....	.....	80,000	613,000	178,000	26,000	(1)	1,241,312
State College of Washington	349,627	416,895	.....	1,557,395	1,479,806	123,799	1,276,822	247,755	51,020	23,580	5,526,699
West Virginia University	115,104	.....	.....	.....	.....	300,000	700,000	233,086	48,000	30,000	1,426,190
University of Wisconsin	302,459	232,529	163,315	120	790	2,137,311	4,367,352	1,000,027	567,656	56,352	8,827,911
University of Wyoming	54,725	45,968	.....	746,954	340,150	110,000	465,000	215,000	80,000	10,000	2,077,797
Total	14,678,917	3,631,065	31,394,823	7,316,326	5,778,700	30,351,685	62,828,416	21,672,836	6,636,188	1,513,072	185,802,028
Institutions for colored students.											
State Agricultural and Mechanical College for Negroes, Alabama	.....	.....	.....	.....	.....	35,000	133,300	28,000	6,750	750	203,800
Branch Normal College, Arkansas	.....	.....	.....	.....	.....	60,000	28,500	23,695	3,350	1,000	116,545
State College for Colored Students, Delaware	.....	.....	.....	.....	.....	10,000	28,000	1,500	200	2,950	42,650
Florida Agricultural and Mechanical College for Negroes	.....	.....	.....	.....	.....	18,750	88,050	18,550	1,440	3,750	130,540
Georgia State Industrial College	.....	.....	.....	.....	.....	9,000	87,000	25,000	1,000	.....	122,000
Kentucky Normal and Industrial Institute for Colored Persons	(4)	.....	.....	.....	.....	34,000	90,000	8,872	300	5,555	138,727

Southern University and Agricultural and Mechanical College, Louisiana						21,750	77,170	9,339	400	4,615	113,274
Princess Anne Academy, Maryland						6,000	30,500	5,500	2,162	2,200	46,362
Alcorn Agricultural and Mechanical College, Mississippi	113,575	98,000				10,000	225,000	25,000	1,500	8,500	481,575
Lincoln Institute, Missouri						50,000	145,000	25,500	5,500		226,000
Negro Agricultural and Technical College, North Carolina						35,000	80,000	17,000	5,100	4,425	141,525
Colored Agricultural and Normal University, Oklahoma						16,000	150,000	15,000	525	4,313	185,838
Colored Normal, Industrial, Agricultural, and Mechanical College, South Carolina	95,900					40,000	232,000	15,340	500	6,800	390,540
Agricultural and Industrial State Normal School for Negroes, Tennessee						50,028	94,931	15,329	1,071	4,932	166,291
Prairie View State Normal and Industrial College, Texas						53,050	206,226	500	5,000	9,000	273,776
Hampton Normal and Agricultural Institute, Virginia	172,156		3,087,624			125,000	950,000	190,000	13,079	26,066	4,563,925
West Virginia Collegiate Institute						12,650	145,125	101,154	1,893	2,000	262,822
Total	381,631	98,000	3,087,624			586,228	2,790,792	525,279	49,770	86,856	7,606,190
Grand total	15,060,548	3,729,065	34,482,447	7,316,326	5,778,700	30,937,913	65,619,208	22,198,115	6,685,958	1,599,928	193,408,218

[1] Included in apparatus and machinery.
[2] Hawaii and Porto Rico do not participate in this grant.
[3] Land grants not separated, total of all.
[4] See University of Kentucky.

TABLE 8.—*Value of additions during the year to equipment of colleges of agriculture and the mechanic arts, 1916–17.*

Institutions.	Permanent endowment.	Buildings.	Library.	Apparatus.	Machinery.	Live stock.	Miscellaneous.	Total.
1	2	3	4	5	6	7	8	9
Alabama Polytechnic Institute		$250	$360	$850	$350	$275	$800	$2,885
University of Arizona		975	3,683	7,011	340		1,559	13,568
University of Arkansas		1,000	500	500	250	1,965		4,215
University of California	$123,806	1,739,901	32,459	67,655	(1)	10,679	205,227	2,179,727
Colorado Agricultural College		12,694	1,400	2,998	3,142			20,234
Connecticut Agricultural College		65,648	433	4,254	1,526	882		72,743
Delaware College		514,000	1,500	2,629	1,200	3,500		522,829
University of Florida		500	3,000	1,000	1,000		350	5,850
Georgia State College of Agriculture		800	1,635	15,472	150	2,560		20,617
College of Hawaii			6,180	1,830	578		126	8,714
University of Idaho		6,885	5,009	3,907	5,152	3,053	3,281	27,287
University of Illinois		981,358	176,646	246,703	(1)			1,404,707
Purdue University, Indiana	105,593	100,000	4,500	12,000	3,300	2,000		227,393
Iowa State College of Agriculture and Mechanic Arts	3,462	161,081	9,200	32,782	(1)	6,884	75,767	289,176
Kansas State Agricultural College		12,350	7,941	29,900	400	27,363	61,389	139,343
University of Kentucky			1,000	7,500			2,500	11,000
Louisiana State University and Agricultural and Mechanical College	400	573	1,288	19,035	708		11,921	33,925
University of Maine		9,278	4,956	1,682	(1)	728		16,644
Maryland State College of Agriculture		515,000	2,000	25,000	10,000	10,000	5,000	567,000
Massachusetts Agricultural College		56,801	5,955		20,838			83,594
Massachusetts Institute of Technology	973,507	3,752,477						4,725,984
Michigan Agricultural College		200,000	2,000	15,000	26,000	8,000		251,000
University of Minnesota	90,584	122,131	35,783	31,300	5,642	6,350	19,682	311,472
Mississippi Agricultural and Mechanical College		8,870	3,211	14,006	5,565	21,764	18,421	71,837
University of Missouri	2,000	32,971	21,181	59,000	(1)	19,333		134,485
Montana State College of Agriculture and Mechanic Arts	29,235		1,500			3,000		33,735
University of Nebraska	29,117	302,431	12,900	6,932	9,391	6,207	8,011	374,989
University of Nevada		80,000	55	842	1,062	21,510	1,094	104,563
New Hampshire College of Agriculture and Mechanic Arts		3,500	500					4,000
Rutgers College, New Jersey	102,068	16,500	5,000	3,600				127,168
New Mexico College of Agriculture and Mechanic Arts			265	950	933			2,148
Cornell University, New York	160,654	225,142	5,094	85,744	(1)	(1)	3,250	479,884
North Carolina State College of Agriculture and Engineering		3,394	1,594	3,341	3,463	1,196	2,371	15,359
North Dakota Agricultural College			2,112	2,607	2,194	22	9,517	16,452
Ohio State University	12,249	172,010	24,298	74,307	29,261	2,811	6,305	321,241
Oklahoma Agricultural and Mechanical College		1,874	1,160	4,482	3,036	3,281	10,877	24,710
Oregon Agricultural College		9,520	5,000	10,177	(1)	8,000		32,697
Pennsylvania State College				22,862				22,862
University of Porto Rico	207		744	4,232	3,082	(2)	1,861	10,126

Rhode Island State College			341	1,200	276		2,425	4,242
Clemson Agricultural College, South Carolina		10,548	490	4,858	(1)			15,896
South Dakota State College of Agriculture and Mechanic Arts			800	500	200	600		2,100
University of Tennessee		810	2,200	2,519	1,412	666	3,263	10,870
Agricultural and Mechanical College of Texas		281,225		79,207				360,432
Agricultural College of Utah			3,175	2,549	1,622	847	3,395	11,588
University of Vermont and State Agricultural College			3,500	2,722	(1)	2,476		8,698
Virginia Agricultural and Mechanical College and Polytechnic Institute		20,600	600	1,000				22,200
State College of Washington	106,272	12,416	1,575	4,364	4,086	1,439		130,152
West Virginia University		10,000	5,000	16,500	(1)	17,500		49,000
University of Wisconsin	12,675	228,234	25,490	38,421	9,744	6,450	31,601	352,615
University of Wyoming	18,646	19,988	3,484	5,049	1,689	2,656	2,717	54,229
Total	1,770,475	9,693,735	438,697	980,979	157,592	203,997	492,710	13,738,185
Institutions for colored students.								
State Agricultural and Mechanical College for Negroes, Alabama			12	52	800		340	1,204
Branch Normal College, Arkansas			50	195	380	435	265	1,325
State College for Colored Students, Delaware					250	1,100		1,350
Florida Agricultural and Mechanical College for Negroes			42	130	396	20		588
Georgia State Industrial College								
Kentucky Normal and Industrial Institute for Colored Persons								
Southern University and Agricultural and Mechanical College, Louisiana		11,300	100	174	3,086	1,300		15,960
Princess Anne Academy, Maryland		1,374	50	300	200	100	2,700	4,724
Alcorn Agricultural and Mechanical College, Mississippi					2,000	500	2,648	5,148
Lincoln Institute, Missouri								
Negro Agricultural and Technical College, North Carolina			100	150	200			450
Colored Agricultural and Normal University, Oklahoma								
Colored Normal, Industrial, Agricultural, and Mechanical College, South Carolina		60,000	200	450		250		60,900
Agricultural and Industrial State Normal School for Negroes, Tennessee			95		149	1,063	2,334	3,641
Prairie View State Normal and Industrial College, Texas		115,000	200	209	10,000	4,505	3,000	128,859
Hampton Normal and Agricultural Institute, Virginia	201,301	150,523	1,320	4,419	(1)	1,785	71,152	430,500
West Virginia Collegiate Institute			200				1,500	1,700
Total	201,301	338,197	2,369	6,079	17,461	7,003	83,939	656,349
Grand total	1,971,776	10,031,932	441,066	987,058	175,053	211,000	576,649	14,394,534

[1] Included with apparatus.

[2] Decrease of $1,211.50.

TABLE 9.—*Income of colleges of agriculture and the mechanic arts, in 1916–17, for instruction and administration.*

Institutions.	State funds.					United States funds.									
	From endowment granted by the State.	From mill-tax levy for support.	From mill-tax levy for permanent improvements.	From appropriations for support.	From appropriations for permanent improvements.	From land-grant fund of 1862.	From other land grants.	Morrill-Nelson funds of 1890 and 1907.	From college endowment funds.	From tuition, fees, board and lodging.	From departmental earnings.	From private gifts for support.	From private gifts for permanent improvements and endowment.	Miscellaneous.	Total income, excluding extension and experiment station.[1]
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alabama Polytechnic Institute	$1,160	$12,710	.....	$40,800	.....	$20,280	.....	$27,900	.....	$16,107	.....	.....	.....	$21,265	$140,222
University of Arizona	.....	.....	.....	137,342	$75,000	5,209	.....	50,000	$430	28,633	$4,464	.....	$160,000	3,176	464,254
University of Arkansas	.....	.....	.....	110,223	.....	4,200	.....	36,364	17	24,420	12,533	.....	.....	1,915	189,672
University of California	50,949	.....	.....	1,640,437	1,325,430	42,538	$4,123	50,000	122,785	254,036	214,699	$76,541	155,481	61,270	3,998,299
Colorado Agricultural College	.....	125,631	.....	.....	.....	23,362	.....	50,000	.....	23,367	.....	.....	.....	27,377	249,737
Connecticut Agricultural College	.....	.....	.....	40,000	65,648	6,750	.....	50,000	.....	51,808	86,726	.....	.....	.....	300,932
Delaware College	.....	.....	.....	107,653	1,111	4,980	.....	40,000	20,879	29,897	2,458	.....	.....	.....	209,978
University of Florida	.....	.....	.....	43,917	.....	7,790	2,064	25,000	7,630	35,056	.....	.....	.....	2,619	124,076
Georgia State College of Agriculture	.....	.....	.....	60,000	.....	14,954	.....	33,333	1,400	5,869	35,216	.....	.....	1,373	152,145
College of Hawaii	.....	.....	.....	14,000	685	.....	.....	50,000	.....	189	4,020	.....	100	1,281	70,275
University of Idaho	.....	.....	.....	82,354	.....	49,745	54,150	50,000	.....	11,750	14,158	.....	.....	.....	262,157
University of Illinois	.....	2,575,129	.....	.....	.....	32,451	.....	50,000	.....	255,551	177,651	.....	.....	8,159	3,098,941
Purdue University, Indiana	.....	363,162	$124,964	.....	.....	17,000	.....	50,000	.....	90,240	19,662	80	.....	36,355	701,463
Iowa State College	.....	.....	.....	625,000	267,500	35,417	.....	50,000	.....	105,954	127,854	.....	3,000	112,258	1,326,983
Kansas State Agricultural College	.....	.....	.....	460,000	2,350	27,026	.....	50,000	.....	88,931	156,656	.....	.....	.....	784,963
University of Kentucky	.....	58,681	.....	92,000	.....	8,644	.....	42,750	.....	13,315	.....	3,000	.....	421	218,811
Louisiana State University	.....	.....	.....	125,194	.....	9,116	5,440	28,856	.....	18,450	.....	2,500	3,400	39,035	231,991
University of Maine	.....	.....	.....	125,000	16,250	5,915	.....	50,000	.....	78,247	814	.....	4,000	26,531	303,757
Maryland State College of Agriculture	.....	.....	.....	30,000	.....	6,147	.....	50,000	.....	36,233	.....	.....	.....	.....	122,380
Massachusetts Agricultural College	3,313	.....	.....	245,000	107,443	7,300	.....	33,333	.....	69,250	68,286	.....	.....	11,349	545,274
Massachusetts Institute of Technology	.....	.....	.....	100,000	.....	5,307	.....	16,667	246,489	573,715	.....	.....	.....	106,910	1,049,088
Michigan Agricultural College	.....	394,000	110,000	.....	110,000	69,437	.....	50,000	.....	62,564	137,579	.....	90,050	.....	1,023,630
University of Minnesota	.....	293,749	.....	947,311	47,500	19,863	39,712	50,000	.....	537,850	257,583	.....	.....	.....	2,193,568
Mississippi Agricultural and Mechanical College	.....	.....	.....	155,772	2,500	5,915	8,473	22,731	.....	116,929	83,245	.....	.....	40,030	435,595
University of Missouri	46,103	.....	.....	470,491	65,128	18,778	.....	46,875	.....	229,949	71,255	.....	.....	27,386	975,965
Montana State College	.....	.....	.....	74,684	.....	[2]34,081	([3])	50,000	.....	23,596	8,777	.....	.....	.....	191,138
University of Nebraska	.....	465,769	399,327	57,500	85,000	35,771	15,330	50,000	.....	128,437	88,371	.....	.....	62,894	1,388,399

University of Nevada		98,211		30,000	123,000	5,454	1,820	50,000	6,000	31,836					346,321
New Hampshire College of Agriculture and Mechanic Arts				34,358		4,800		50,000	35,066	42,774	68,754				235,752
Rutgers College, New Jersey				97,168		5,800		50,000	34,658	58,695		23,848	28,700	4,947	303,816
New Mexico College of Agriculture and Mechanic Arts				32,077			11,910	50,000		14,225	17,514			1,288	127,014
Cornell University, New York				582,131	129,015	34,429		50,000	681,968	927,019	506,692	28,453	98,453	38,732	3,076,892
North Carolina State College of Agriculture and Engineering				105,000		7,500		33,500		78,154	22,419			8,506	255,079
North Dakota Agricultural College		828		61,800		69,510		50,000		11,388	12,909				206,465
Ohio State University	8,297			1,284,699	162,620	15,725	5,875	50,000		209,289	87,197	8,350	319	104,201	1,936,572
Oklahoma Agricultural and Mechanical College				215,152				[3] 50,171		28,035	33,261				326,619
Oregon Agricultural College		[4]368,225	(4)		65,000	12,893		50,000		81,714	26,711				604,543
Pennsylvania State College				448,323		31,020		50,000	74,096	2,136				91,530	697,105
University of Porto Rico	[5] 40,369			50,000				50,000		1,655	2,719				144,743
Rhode Island State College				40,000	85,500	2,500		50,000		56,115	8,831				242,946
Clemson Agricultural College, South Carolina				[6] 237,944		5,754		25,000		151,275			3,512	7,755	431,240
South Dakota State College				81,000	33,488	[2] 40,980	(2)	50,000		17,761	26,485			28,706	278,420
University of Tennessee				100,849		23,960		38,000	2,569	63,602	6,098	3,199		3,392	241,669
Agricultural and Mechanical College of Texas				404,150	324,105	10,450		37,500		197,051	114,840			62,327	1,150,423
Agricultural College of Utah		83,067			2,684	12,014		50,000		10,522	7,516			2,384	168,187
University of Vermont				50,800		8,130	4,124	50,000	36,122	78,318			102	21,134	248,730
Virginia Polytechnic Institute				65,000	20,333	20,569		33,333		90,752				97,718	327,795
State College of Washington		[4]294,710	(4)			40,000	52,000	50,000		33,834	56,016				526,560
West Virginia University				220,000	200,000	6,000		40,000		53,949	11,529				531,478
University of Wisconsin	10,575	1,225,048	29,603	62,270	198,933	13,362	12,326	50,000		655,750	339,727	21,800		26,190	2,645,584
University of Wyoming		82,613	28,222			17,070	18,715	50,000		29,747	28			6,087	232,482
Total	160,766	6,441,533	692,116	9,987,399	3,516,233	906,016	236,062	2,261,313	1,270,109	5,835,939	2,921,253	167,771	547,117	1,096,501	36,040,128
Institutions for colored students.															
State Agricultural and Mechanical College for Negroes, Alabama				4,000				22,100		2,497	1,165			170	29,932
Branch Normal College, Arkansas				3,000				13,636		1,295	1,774				19,705
State College for Colored Students, Delaware				3,500				10,000		3,234	1,153			22	17,909
Florida Agricultural and Mechanical College				9,000				25,000		20,227	727	300			55,254
Georgia State Industrial College				8,000				16,667							24,667

[1] When impossible to separate experiment station and extension funds from other college funds, all are included in this table.
[2] No separation of land-grant funds, total under land-grant fund of 1862.
[3] $171 is bank interest.
[4] Total mill-tax levy, including levy for permanent improvements, included in mill-tax levy for support.
[5] Of this amount $427.50 is interest on endowment, the balance is a fund composed of 50 per cent of the fines paid into the courts of Porto Rico.
[6] Privilege of the fertilizer tax.

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TABLE 9.—*Income of colleges of agriculture and the mechanic arts, in 1916–17, for instruction and administration*—Continued.

Institutions.	State funds.					United States funds.			From college endowment funds.	From tuition, fees, board and lodging.	From departmental earnings.	From private gifts for support.	From private gifts for permanent improvements and endowment.	Miscellaneous.	Total income, excluding extension and experiment station.
	From endowment granted by the State.	From mill-tax levy for support.	From mill-tax levy for permanent improvements.	From appropriations for support.	From appropriations for permanent improvements.	From land-grant fund of 1862.	From other land grants.	Morrill-Nelson funds of 1890 and 1907.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Institutions for colored students—Contd.															
Kentucky Normal and Industrial Institute				$18,250		$1,256		$7,250		$10,145					$36,901
Southern University and Agricultural and Mechanical College, Louisiana				12,500				21,144		16,823	$3,337			$177	53,981
Princess Anne Academy, Maryland				4,436				10,000		10,086	862	$100	$1,374	342	27,200
Alcorn Agricultural and Mechanical College, Mississippi				8,000	$5,500	6,815	$5,778	27,269		23,235	3,038				79,635
Lincoln Institute, Missouri				51,974				3,125		2,974	806				58,879
Negro Agricultural and Technical College, North Carolina				15,000				16,500		13,179	10,031			735	55,445
Colored Agricultural and Normal University, Oklahoma				45,000	16,269			5,000						8,601	74,870
Colored Normal, Industrial, Agricultural and Mechanical College, South Carolina				11,500	25,000	5,754		25,000		5,860					73,114
Agricultural and Industrial State Normal School, Tennessee				23,931	75,000			12,000		20,547	5,547				137,025
Prairie View State Normal and Industrial College, Texas				61,255	137,200			12,500		92,075	20,719				323,749
Hampton Normal and Agricultural Institute, Virginia				600		10,329		16,667	$129,498			143,883	352,849	6,567	660,393
West Virginia Collegiate Institute				33,500	8,500			10,000		19,752				721	72,473
Total				313,446	267,469	24,154	5,778	253,858	129,498	241,929	49,159	144,283	354,223	17,335	1,801,132
Grand total	$160,766	$6,441,533	$692,116	10,300,845	3,783,702	930,170	241,840	2,515,161	1,399,607	6,077,868	2,970,412	312,054	901,340	1,113,836	37,841,260

TABLE 10.—*Income of colleges of agriculture and the mechanic arts, in 1916–17, for experiment stations and for extension service.*

Institutions.	Funds for the experiment stations.					Funds for the extension service.					Grand total income of institutions for 1916–17.
	State funds.	United States funds.	Private gifts.	Experiment-station earnings.	Total of experiment-station income.	State funds, Smith-Lever and others.	United States funds.	County, municipality, or associations' funds.	Private gifts and miscellaneous.	Total of extension-service income.	
1	2	3	4	5	6	7	8	9	10	11	12
Alabama Polytechnic Institute	$26,125	$30,000	.....	.....	$56,125	$27,490	$49,402	$42,116	.....	$119,008	$315,355
University of Arizona	28,150	30,000	.....	$10,159	68,309	10,000	13,145	4,998	.....	28,143	560,706
University of Arkansas	.....	30,000	.....	839	30,839	67,370	40,250	75,373	$6,664	189,657	410,168
University of California	[1] 120,796	30,000	$2,300	80,412	233,508	[1] 20,000	30,235	.....	38,013	88,248	4,320,055
Colorado Agricultural College	31,543	30,000	.....	.....	61,543	17,489	18,786	22,350	.....	58,625	369,905
Connecticut Agricultural College	4,500	15,000	.....	7,170	26,670	17,500	12,562	.....	400	30,462	358,064
Delaware College	10,000	30,000	.....	12,279	52,279	14,693	12,412	.....	.....	27,105	286,362
University of Florida	.....	30,000	2,500	3,620	36,120	21,893	21,893	.....	.....	43,786	203,982
Georgia State College of Agriculture	.....	.....	.....	.....	.....	88,651	56,151	125,424	14,406	284,632	436,777
College of Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	70,275
University of Idaho	([1])	30,000	.....	5,578	35,578	5,699	15,700	.....	.....	21,399	319,134
University of Illinois	([1])	30,000	.....	53,263	83,263	58,184	.....	.....	.....	58,184	3,240,388
Purdue University, Indiana	91,000	30,000	105,594	217,840	444,434	30,000	44,707	2,261	.....	76,968	1,222,865
Iowa State College	153,000	30,000	.....	36,113	219,113	111,000	44,432	.....	3,383	158,815	1,704,911
Kansas State Agricultural College	75,000	30,000	.....	54,123	159,123	66,696	36,685	.....	.....	103,381	1,047,467
University of Kentucky	82,553	30,000	.....	124,678	237,231	18,000	48,662	6,200	([2])	72,862	528,904
Louisiana State University	24,500	30,000	.....	27,554	82,054	20,000	35,854	.....	.....	55,854	369,899
University of Maine	22,275	30,000	.....	15,926	68,201	8,047	.....	18,045	.....	26,092	401,050
Maryland State College of Agriculture	30,000	30,000	.....	12,208	72,208	56,203	42,203	.....	.....	98,406	292,994
Massachusetts Agricultural College	36,000	30,000	.....	31,401	97,401	50,000	14,152	.....	5,662	69,814	712,489
Massachusetts Institute of Technology	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,049,088
Michigan Agricultural College	15,000	30,000	.....	17,127	62,127	41,000	43,059	.....	138	84,197	1,139,954
University of Minnesota	179,450	30,000	.....	61,823	271,273	87,315	.....	.....	.....	87,315	2,552,156
Mississippi Agricultural and Mechanical College	35,425	30,000	.....	17,725	83,150	19,020	45,437	44,435	.....	108,892	627,637
University of Missouri	20,213	30,000	.....	29,916	80,129	82,615	52,229	18,857	.....	153,701	1,209,795
Montana State College of Agriculture and Mechanic Arts	66,043	30,000	.....	12,593	108,636	47,410	13,525	12,535	2,600	76,070	375,844
University of Nebraska	27,250	30,000	.....	48,055	105,305	25,000	29,646	.....	.....	54,646	1,548,350
University of Nevada	1,000	30,000	.....	.....	31,000	9,239	11,527	.....	.....	20,766	398,087
New Hampshire College of Agriculture and Mechanic Arts	.....	30,000	.....	10,943	40,943	4,211	13,911	.....	.....	18,122	294,817
Rutgers College, New Jersey	171,106	30,000	.....	27,000	228,106	25,000	24,041	18,200	600	67,841	599,763

[1] Funds are included with those for instruction and administration in Table 9.

[2] $84,300 not included, as the funds do not pass through the university treasurer.

TABLE 10.—*Income of colleges of agriculture and the mechanic arts, in 1916–17, for experiment stations and for extension service*—Continued.

Institutions.	Funds for the experiment stations.					Funds for the extension service.					Grand total income of institutions for 1916–17.
	State funds.	United States funds.	Private gifts.	Experiment-station earnings.	Total of experiment station income.	State funds, Smith-Lever and others.	United States funds.	County, municipality, or associations' funds.	Private gifts and miscellaneous.	Total of extension-service income.	
1	2	3	4	5	6	7	8	9	10	11	12
New Mexico College of Agriculture and Mechanic Arts	5,346	30,000	125	5,992	41,463	6,258	16,258	15,135	1,522	39,173	207,650
Cornell University, New York	(1)	27,000			27,000	148,174				148,174	3,252,066
North Carolina State College of Agriculture and Engineering		30,000		5,387	35,387	42,080	52,080			94,160	384,626
North Dakota Agricultural College	45,000	30,000		30,831	105,831	31,453	21,453	26,958		79,864	392,160
Ohio State University						133,662	55,952	30,050		219,664	2,156,236
Oklahoma Agricultural and Mechanical College	5,154	30,000		5,661	40,815	53,953	39,802	30,750		124,505	491,939
Oregon Agricultural College	28,000	37,700	2,000	11,780	79,480	60,050	33,354	21,250		114,654	798,677
Pennsylvania State College		30,000		48,479	78,479	49,432	77,639			127,071	902,655
University of Porto Rico											144,743
Rhode Island State College	(1)	30,000		3,540	33,540	1,028	10,400	2,500	2,000	15,928	292,414
Clemson Agricultural College, South Carolina		30,000	2,396	32,396	64,792	38,767				38,767	534,799
South Dakota State College	12,202	30,000		17,148	59,350	30,000	21,306	16,700		68,006	405,776
University of Tennessee	15,000	30,000		15,537	60,537	38,869	48,869	761	2,908	91,407	393,615
Agricultural and Mechanical College of Texas	135,000	30,000		37,735	202,735	141,889	90,255	67,000		299,144	1,652,302
Agricultural College of Utah	15,750	30,000		7,395	53,145	24,750	14,467	8,300	30	47,547	268,879
University of Vermont		30,000		21,392	51,392	8,000	14,169			22,169	322,291
Virginia Polytechnic Institute	21,062	30,000		7,268	58,330	36,000	45,332	42,156		123,488	509,613
State College of Washington	33,965	30,000	2,555	17,957	84,477	15,933	21,958		434	38,325	649,362
West Virginia University	20,000	30,000	125,000	24,585	199,585	72,731	25,050	42,480	1,000	141,261	872,324
University of Wisconsin	(1)	30,000			30,000	297,180	39,636	1,500		338,316	3,013,900
University of Wyoming	1,475	30,000		1,788	33,263	34,449	12,290		225	46,964	312,709
Total	1,588,883	1,369,700	242,470	1,213,216	4,414,269	2,314,383	1,410,876	696,334	79,985	4,501,578	44,955,975
Institutions for colored students.											
State Agricultural and Mechanical College for Negroes, Alabama											29,932
Branch Normal College, Arkansas											19,705
State College for Colored Students, Delaware											17,909
Florida Agricultural and Mechanical College for Negroes						5,000				5,000	60,254
Georgia State Industrial College											24,667
Kentucky Normal and Industrial Institute for Colored Persons											36,901

Louisiana						5,180	960			6,140	60,121
Princess Anne Academy, Maryland											27,200
Alcorn Agricultural and Mechanical College, Mississippi											79,635
Lincoln Institute, Missouri											58,879
Negro Agricultural and Technical College, North Carolina											55,445
Colored Agricultural and Normal University, Oklahoma											74,870
Colored Normal, Industrial, Agricultural, and Mechanical College, South Carolina			150		150	1,000				1,000	74,264
Agricultural and Industrial State Normal School for Negroes, Tennessee											137,025
Prairie View State Normal and Industrial College, Texas											323,749
Hampton Normal and Agricultural Institute, Virginia											660,393
West Virginia Collegiate Institute											72,473
Total			150		150	11,180	960			12,140	1,813,422
Grand total	1,588,883	1,369,700	242,620	1,213,216	4,414,419	2,325,563	1,411,836	696,334	79,985	4,513,718	46,769,397

[1] Funds are included with those for instruction and administration in Table 9.

TABLE 11.—*Disbursement of Morrill-Nelson funds received under acts of Congress approved August 30, 1890, and March 4, 1907, by colleges of agriculture and the mechanic arts for the year ending June 30, 1917.*

Institutions.	Balance on hand July 1, 1916.	Appropriation for year ending June 30, 1917.	Total amount available for the year 1916–17.	Disbursements.								Balance on hand July 1, 1917.
				For instructions in—						Special preparation of teachers of the elements of agriculture and mechanic arts, schedule G.	Total expenditures for the year 1916–17.	
				Agriculture, schedule A.	Mechanic arts, schedule B.	English language, schedule C.	Mathematical science, schedule D.	Natural and physical sciences, schedule E.	Economic science, schedule F.			
1	2	3	4	5	6	7	8	9	10	11	12	13
Alabama Polytechnic Institute	0	$27,900.00	$27,900.00	$2,087.50	$12,500.00	$1,962.50	$4,925.00	$6,425.00	.....	.....	$27,900.00	0
University of Arizona	$218.57	50,000.00	50,218.57	5,840.90	15,770.00	4,990.00	4,085.66	11,863.34	$6,500.00	.....	49,050.90	$1,167.67
University of Arkansas	0	36,363.64	36,363.64	7,459.70	8,454.00	3,950.00	4,377.64	8,130.04	3,992.26	.....	36,363.64	0
University of California	0	50,000.00	50,000.00	24,999.72	12,499.92	.....	.....	10,000.40	.....	$2,499.96	50,000.00	0
Colorado Agricultural College	0	50,000.00	50,000.00	16,732.88	11,208.14	5,097.37	2,849.92	8,945.17	5,166.52	.....	50,000.00	0
Connecticut Agricultural College	3.88	50,651.28	50,655.16	20,790.95	3,100.00	3,804.16	2,000.00	14,096.65	5,070.78	1,791.66	50,654.21	0.95
Delaware College	982.73	40,000.00	40,982.73	6,024.88	12,854.99	4,961.66	3,508.48	11,710.93	866.66	.....	39,927.60	1,055.13
University of Florida	1.48	25,000.00	25,001.48	3,980.00	6,913.33	2,317.42	2,719.25	7,670.00	1,040.00	360.00	25,000.00	1.48
Georgia State College of Agriculture and Mechanic Arts	0	33,333.34	33,333.34	.....	7,040.86	5,500.00	5,300.00	13,092.48	2,400.00	.....	33,333.34	0
College of Hawaii	883.07	50,000.00	50,883.07	6,754.33	10,841.47	3,261.40	2,823.97	25,206.83	1,966.60	.....	50,854.60	28.47
University of Idaho	0	50,000.00	50,000.00	12,596.10	10,011.46	4,060.00	1,680.00	15,602.44	6,020.00	.....	50,000.00	0
University of Illinois	0	50,000.00	50,000.00	15,281.43	13,108.17	.....	.....	11,891.83	9,718.57	.....	50,000.00	0
Purdue University, Indiana	0	50,000.00	50,000.00	18,180.43	4,270.99	2,649.98	4,059.90	16,093.78	3,019.92	1,725.00	50,000.00	0
Iowa State College of Agriculture and Mechanic Arts	0	50,000.00	50,000.00	14,516.68	13,250.00	2,500.00	1,766.66	12,896.66	2,600.00	2,500.00	50,000.00	0
Kansas State Agricultural College	0	50,000.00	50,000.00	.....	28,966.68	8,411.19	8,608.37	4,500.02	7,513.74	.....	50,000.00	0
University of Kentucky	0	42,750.00	42,750.00	1,860.00	15,490.00	4,930.00	4,396.00	12,870.00	3,204.00	.....	42,750.00	0
Louisiana State University and Agricultural and Mechanical College	0	28,856.25	28,856.25	8,098.08	5,667.34	4,000.00	4,047.10	7,043.73	.....	.....	28,856.25	0
University of Maine	0	50,000.00	50,000.00	11,350.00	13,650.00	4,800.00	4,100.00	11,500.00	2,850.00	1,750.00	50,000.00	0
Maryland State College of Agriculture	0	40,000.00	40,000.00	12,025.00	8,720.00	3,550.00	2,460.00	9,660.00	1,500.00	2,075.00	40,000.00	0
Massachusetts Agricultural College	0	33,333.33	33,333.33	16,200.00	.....	1,033.33	.....	16,100.00	.....	.....	33,333.33	0

Massachusetts Institute of Technology	.09	16,666.67	16,666.76	.....	7,880.00	2,500.00	4,280.00	2,000.00	.....	.....	16,660.00	6.76
Michigan Agricultural College	0	50,000.00	50,000.00	14,900.10	14,658.60	2,541.50	4,325.30	12,191.30	1,383.20	.....	50,000.00	0
University of Minnesota	0	50,000.00	50,000.00	21,950.00	12,000.00	5,200.00	2,500.00	6,100.00	1,150.00	1,100.00	50,000.00	0
Mississippi Agricultural and Mechanical College	0	22,730.73	22,730.73	6,734.92	5,871.56	3,507.69	3,133.28	3,483.28	.....	.....	22,730.73	0
University of Missouri	0	35,156.25	35,156.25	22,432.50	.....	.....	.....	10,890.45	1,833.30	.....	35,156.25	0
Missouri School of Mines and Metallurgy	0	11,718.75	11,718.75	.....	5,874.90	1,333.28	1,666.64	1,983.26	.....	.....	10,858.08	860.67
Montana State College of Agriculture and Mechanic Arts	0	50,000.00	50,000.00	11,233.30	13,283.34	4,025.00	3,750.00	11,358.36	6,350.00	.....	50,000.00	0
University of Nebraska	0	50,000.00	50,000.00	12,374.99	15,783.33	1,333.33	750.00	13,933.35	2,725.00	3,100.00	50,000.00	0
University of Nevada	0	50,000.00	50,000.00	7,353.19	11,372.32	6,199.92	4,599.96	14,774.73	5,699.88	.....	50,000.00	.....
New Hampshire College of Agriculture and Mechanic Arts	0	50,000.00	50,000.00	16,627.39	14,216.63	3,400.00	.....	15,573.50	182.48	.....	50,000.00	0
Rutgers College, New Jersey	0	50,000.00	50,000.00	2,210.26	13,477.17	6,400.00	7,580.16	20,324.01	8.40	.....	50,000.00	0
New Mexico College of Agriculture and Mechanic Arts	0	50,000.00	50,000.00	14,506.89	12,673.92	5,697.81	3,447.53	9,803.85	2,664.00	1,200.00	49,994.00	6.00
Cornell University, New York	0	50,000.00	50,000.00	11,083.34	20,000.00	1,000.00	1,000.00	9,250.00	1,166.66	6,500.00	50,000.00	0
North Carolina State College of Agriculture and Engineering	0	33,500.00	33,500.00	11,050.00	16,850.00	.....	.....	5,600.00	.....	.....	33,500.00	0
North Dakota Agricultural College	0	50,000.00	50,000.00	10,133.06	12,099.84	5,467.57	5,199.88	9,749.79	5,858.20	1,491.66	50,000.00	0
Ohio State University	1.75	50,000.00	50,001.75	11,030.00	11,200.00	3,900.00	4,660.00	14,350.00	4,860.00	.....	50,000.00	1.75
Oklahoma Agricultural and Mechanical College	0	[1] 50,170.77	50,170.77	15,344.60	16,668.55	4,206.76	3,550.20	7,511.74	2,888.92	.....	50,170.77	0
Oregon Agricultural College	0	50,000.00	50,000.00	10,740.29	10,681.24	2,601.58	3,766.59	12,595.52	8,314.79	1,299.99	50,000.00	0
Pennsylvania State College	1,561.51	50,000.00	51,561.51	13,700.01	11,000.00	900.00	12,100.00	8,500.00	3,600.00	1,299.99	51,100.00	461.51
University of Porto Rico	2,169.22	50,000.00	52,169.22	8,469.52	17,454.79	4,950.00	1,801.30	8,757.37	2,916.76	5,280.00	49,629.74	2,539.48
Rhode Island State College	708.64	50,000.00	50,708.64	13,210.93	10,787.08	4,358.74	3,137.03	15,493.49	3,521.37	260.00	50,708.64	0
Clemson Agricultural College, South Carolina	0	25,000.00	25,000.00	2,947.80	10,197.24	3,662.41	3,820.75	4,371.80	.....	.....	25,000.00	0
South Dakota State College of Agriculture and Mechanic Arts	0	50,000.00	50,000.00	11,987.70	12,270.95	2,560.00	3,280.00	16,281.35	3,620.00	.....	50,000.00	0
University of Tennessee	0	38,000.00	38,000.00	5,430.45	14,568.46	2,300.00	2,433.50	10,547.59	1,980.00	740.00	38,000.00	0
Agricultural and Mechanical College of Texas	0	[1] 37,860.53	37,860.53	12,699.84	11,191.43	3,682.55	875.33	6,755.85	555.57	2,099.96	37,860.53	0
Agricultural College of Utah	0	50,000.00	50,000.00	5,536.10	8,733.22	5,625.07	4,696.93	13,630.37	11,778.31	.....	50,000.00	0
University of Vermont and State Agricultural College	0	50,000.00	50,000.00	7,750.00	13,566.66	4,750.00	6,200.00	12,200.00	3,183.34	2,350.00	50,000.00	0
Virginia Agricultural and Mechanical College and Polytechnic Institute	0	33,333.34	33,333.34	4,100.00	10,300.00	1,600.00	5,800.00	10,100.00	1,433.34	.....	33,333.34	0
State College of Washington	0	50,000.00	50,000.00	13,700.28	10,395.13	5,783.26	2,466.62	14,526.45	3,128.26	.....	50,000.00	0
West Virginia University	305.58	40,000.00	40,305.58	4,015.76	23,533.32	.....	3,800.00	7,500.00	1,456.50	.....	40,305.58	0
University of Wisconsin	0	50,000.00	50,000.00	20,000.00	20,000.00	2,500.00	2,500.00	2,500.00	2,500.00	.....	50,000.00	0
University of Wyoming	0	50,000.00	50,000.00	4,118.53	12,286.68	6,926.67	7,038.33	12,481.46	7,148.33	.....	50,000.00	0
Total	6,836.52	[1] 2,252,324.88	2,259,161.40	532,150.34	615,223.71	172,702.15	177,868.28	560,388.17	155,335.66	39,363.22	2,253,031.53	6,129.87

[1] Bank interest on daily balances as follows: Connecticut Agricultural College, $651.28; Oklahoma Agricultural and Mechanical College, $5,170.77; Agricultural and Mechanical College of Texas, $360.53; total of institutions for white students, $6,182.58; Colored Agricultural and Normal University, Oklahoma, $830.51; Prairie View State Normal and Industrial College, Texas, $119.51; total of institutions for colored students, $950.02; grand total, interest on daily balances, $7,132.60.

TABLE 11.—*Disbursement of Morrill-Nelson funds received under acts of Congress approved August 30, 1890, and March 4, 1907, by colleges of agriculture and the mechanic arts for the year ending June 30, 1917*—Continued.

Institutions.	Balance on hand July 1, 1916.	Appropriation for year ending June 30, 1917.	Total amount available for the year 1916–17.	Disbursements.								Balance on hand July 1, 1917.
				For instructions in—						Special preparation of teachers of the elements of agriculture and mechanic arts, schedule G.	Total expenditures for the year 1916–17.	
				Agriculture, schedule A.	Mechanic arts, schedule B.	English language, schedule C.	Mathematical science, schedule D.	Natural and physical sciences, schedule E.	Economic science, schedule F.			
1	2	3	4	5	6	7	8	9	10	11	12	13
Institutions for colored students.												
Agricultural and Mechanical College for Negroes, Alabama	$18.27	$22,100.00	$22,118.27	$3,766.58	$9,339.28	$1,036.22	$1,255.72	$1,220.30	$3,896.62	$1,400.00	$21,914.72	$203.55
Branch Normal College, Arkansas	11,141.03	13,636.36	24,777.39	3,123.97	5,221.18	1,558.70	1,954.17	2,528.53	3,550.71	138.93	18,076.19	6,701.20
State College for Colored Students, Delaware	1,833.70	10,000.00	11,833.70	4,098.10	2,617.02	1,313.46	785.00	688.76	1,144.14	50.00	10,696.48	1,137.22
Florida Agricultural and Mechanical College for Negroes	1.08	25,000.00	25,001.08	5,750.41	5,703.58	3,975.91	1,860.00	2,321.17	4,600.80	.....	24,211.87	789.21
Georgia State Industrial College	2,995.64	16,666.66	19,662.30	3,298.77	7,366.29	3,189.00	759.00	928.98	2,659.39	.....	18,201.43	1,460.87
Kentucky Normal and Industrial Institute for Colored Persons	0	7,250.00	7,250.00	1,191.64	1,834.00	1,470.00	800.00	850.00	1,104.36	.....	7,250.00	0
Southern University and Agricultural and Mechanical College, Louisiana	11,026.16	21,143.75	32,169.91	8,133.28	7,948.42	5,475.54	2,450.00	800.00	3,048.95	2,008.33	29,864.52	2,305.39
Princess Anne Academy, Maryland	3.33	10,000.00	10,003.33	1,665.89	3,149.57	1,800.00	710.00	689.65	1,168.44	810.00	8,993.55	9.78
Alcorn Agricultural and Mechanical College, Mississippi	174.43	27,269.27	27,443.70	4,931.53	6,722.23	2,906.76	3,276.66	2,900.00	3,860.74	500.00	25,097.92	2,345.78
Lincoln Institute, Missouri	0	3,125.00	3,125.00	630.00	2,040.00	.....	.....	.....	455.00	.....	3,125.00	0
Negro Agricultural and Technical College, North Carolina	0	16,500.00	16,500.00	4,135.81	6,261.31	3,860.00	1,290.00	745.38	207.50	.....	16,500.00	0
Colored Agricultural and Normal University, Oklahoma	17.02	[1] 5,830.51	5,847.53	983.14	979.96	606.64	366.64	549.96	1,459.05	.....	4,945.39	902.14
Colored Normal, Industrial, Agricultural, and Mechanical College, South Carolina	1.76	25,000.00	25,001.76	3,453.70	9,971.07	3,909.10	2,312.49	1,994.53	2,370.19	.....	24,011.08	990.68

Agricultural and Industrial State Normal School for Negroes, Tennessee	2,549.41	12,000.00	14,549.41	1,835.00	1,880.00	2,440.00	1,735.00	1,270.00	3,178.50	.....	12,338.50	2,210.91
Prairie View State Normal and Industrial College, Texas	0.	[1] 12,619.51	12,619.51	2,089.98	4,319.81	1,109.98	1,579.92	1,535.49	1,984.33	.....	12,619.51	0
Hampton Normal and Agricultural Institute, Virginia	0	16,666.66	16,666.66	3,387.50	8,304.16	575.00	0	1,275.00	3,125.00	.....	16,666.66	0
West Virginia Collegiate Institute	22.89	10,000.00	10,022.89	2,845.37	3,956.94	.....	.....	1,048.45	1,842.06	.....	9,692.82	330.07
Total	29,784.72	[1] 254,807.72	284,592.44	55,320.67	87,614.82	35,226.31	21,134.60	18,540.71	39,655.78	4,907.26	265,205.64	19,386.80
Grand total	36,621.24	[1] 2,507,132.60	2,543,753.84	587,471.01	702,838.53	207,928.46	199,002.88	581,734.37	194,991.44	44,270.48	2,518,237.17	25,516.67

[1] Bank interest on daily balances as follows: Connecticut Agricultural College, $651.28; Oklahoma Agricultural and Mechanical College, $5,170.77; Agricultural and Mechanical College of Texas, $360.53; total of institutions for white students, $6,182.58; Colored Agricultural and Normal University, Oklahoma, $830.51; Prairie View State Normal and Industrial College, Texas, $119.51; total of institutions for colored students, $950.02; grand total, interest on daily balances, $7,132.60.

TABLE 12.—*Income from the fund derived from the land grant of 1862 or from land grants made in lieu of the grant of 1862, for the year ending June 30, 1917.*

Institutions.	Acres received under the grant.	Acres unsold.	Amount of fund.	Income for year 1916–17.	Balance unexpended July 1, 1916.	Total available for the year ending June 30, 1917.	Expenditures for the year 1916–17—			Balance on hand July 1, 1917.
							For salaries.	For facilities for instruction.	For all purposes.	
1	2	3	4	5	6	7	8	9	10	11
Alabama Polytechnic Institute	240,000	0	$254,000.00	$20,280.00	0	$20,280.00	$20,280.00	0	$20,280.00	0
University of Arizona	104,104	104,104	0	[1] 5,209.39	0	5,209.39	5,209.39	0	5,209.39	0
University of Arkansas	150,000	0	132,666.67	3,840.00	$277.00	4,117.00	4,042.00	0	4,042.00	$75.00
University of California	150,000	1,402	732,485.14	42,537.50	0	42,537.50	42,537.50	0	42,537.50	0
Colorado Agricultural College	90,000	45,000	194,443.96	25,970.36	928.29	26,898.65	17,476.08	0	17,476.08	9,422.57
Connecticut Agricultural College	180,000	0	135,000.00	[2] 6,756.98	13.04	6,770.02	6,770.02	0	6,770.02	0
Delaware College	90,000	0	83,000.00	4,980.00	0	4,980.00	4,200.00	$780.00	4,980.00	0
University of Florida	90,000	0	153,500.00	7,790.00	0.02	7,790.02	7,789.67	0	7,789.67	0.35
Georgia State College of Agriculture	270,000	0	242,202.17	16,954.14	0	16,954.14	13,150.00	[3] 3,844.14	16,954.14	0
University of Idaho	90,000	62,643	507,458.48	49,745.05	[4]	49,745.05				
University of Illinois	480,000	0	649,013.20	32,450.66	0	32,450.66	32,450.66	0	32,450.66	0
Purdue University, Indiana	390,000	0	340,000.00	17,000.00	0	17,000.00	17,000.00	0	17,000.00	0
Iowa State College of Agriculture and Mechanic Arts	204,309	0	689,529.57	35,417.26	0	35,417.26	35,417.26	0	35,417.26	0
Kansas State Agricultural College	90,000	7,686	491,746.74	27,025.90	16,745.10	43,771.00	27,603.90	0	27,603.90	16,167.10
University of Kentucky	330,000	0	165,000.00	8,644.50	0	8,644.50	8,644.50	0	8,644.50	0
Louisiana State University and Agricultural and Mechanical College	209,920	0	182,213.03	9,115.69	0	9,115.69	9,115.69	0	9,115.69	0
University of Maine	210,000	0	118,300.00	5,915.00	0	5,915.00	5,915.00	0	5,915.00	0
Maryland State College of Agriculture	210,000	0	115,943.60	6,147.18	0	6,147.18	6,045.00	102.18	6,147.18	0
Massachusetts Agricultural College	360,000	0	219,000.00	7,300.00	0	7,300.00	7,300.00	0	7,300.00	0
Massachusetts Institute of Technology	[5]		[5]	3,650.00	0	3,650.00	750.00	2,900.00	3,650.00	0
Michigan Agricultural College	235,663	50,359	991,241.00	69,437.43	0	69,437.43	69,437.43	0	69,437.43	0
University of Minnesota	94,439	0	616,468.00	19,862.87	21,674.09	41,536.96	28,971.51	0	28,971.51	12,565.45
Mississippi Agricultural and Mechanical College	209,920	0	98,575.00	5,914.61	0	5,914.61	5,914.61	0	5,914.61	0
University of Missouri	277,067	47,287	365,881.19	18,354.09	0	18,354.09	18,353.49	0	18,353.49	0.60
Montana State College of Agriculture and Mechanic Arts	138,954	67,214	[6] 542,572.34	[6] 34,080.95	2,965.84	37,046.79	15,000.00	15,437.44	30,437.44	3,372.38
University of Nebraska	90,000	10,767	593,231.91	35,770.60	9,996.25	45,766.85	41,069.92	0	41,069.92	4,696.93
University of Nevada	90,000	0	107,507.08	3,418.49	1,598.49	5,016.98	0	4,751.26	4,751.26	265.72
New Hampshire College of Agriculture and the Mechanic Arts	150,000	0	80,000.00	4,800.00	0	4,800.00	4,800.00	0	4,800.00	0
Rutgers College, New Jersey	210,000	0	116,000.00	5,800.00	0	5,800.00	5,800.00	0	5,800.00	0
New Mexico College of Agriculture and Mechanic Arts	150,000	91,909	0	0	0	0	0	0	0	0
Cornell University, New York	989,920	0	688,576.12	34,428.80	0	34,428.80	34,428.80	0	34,428.80	0

North Carolina State College of Agriculture and Engineering	270,000	0	125,000.00	7,500.00	0	7,500.00	7,500.00	0	7,500.00	0
North Dakota Agricultural College	130,000	35,843	1,263,146.61	69,540.35	5,697.71	75,238.06	34,152.75	34,439.81	68,592.56	6,645.50
Ohio State University	629,920	0	524,176.50	31,450.59	0	31,450.59	31,450.59	0	31,450.59	0
Oklahoma Agricultural and Mechanical College	150,000	150,000	0	0	0	0	0	0	0	0
Oregon Agricultural College	89,908	920	202,663.99	12,893.05	2,307.27	15,200.32	13,528.69	0	13,528.69	1,671.63
Pennsylvania State College	780,000	0	500,000.00	30,000.00	0	30,000.00	30,000.00	0	30,000.00	0
Rhode Island State College	120,000	0	50,000.00	2,500.00	0	2,500.00	2,500.00	0	2,500.00	0
Clemson Agricultural College, South Carolina	180,000	0	95,900.00	5,754.00	0	5,754.00	5,754.00	0	5,754.00	0
South Dakota State College of Agriculture and Mechanic Arts	160,000	[6] 141,076	[6] 391,646.80	40,979.75	1,722.03	42,701.78	14,676.86	25,694.03	40,370.89	2,330.89
University of Tennessee	300,000	0	400,000.00	23,960.00	0	23,960.00	8,407.33	15,552.67	23,960.00	0
Agricultural and Mechanical College of Texas	180,000	0	209,000.00	11,475.00	0	11,475.00	11,475.00	0	11,475.00	0
Agricultural College of Utah	200,000	51,781	194,451.87	12,013.67	0	12,013.67	12,013.67	0	12,013.67	0
University of Vermont	149,920	0	135,500.00	8,130.00	0	8,130.00	8,130.00	0	8,130.00	0
Virginia Agricultural and Mechanical College and Polytechnic Institute	300,000	0	344,312.00	20,658.72	0	20,658.72	20,658.72	0	20,658.72	0
State College of Washington	89,438	77,870	349,626.59	53,582.57	33,296.06	86,878.63	69,417.50	0	69,417.50	17,461.13
West Virginia University	150,000	0	115,104.17	6,390.00	443.84	6,833.84	6,296.34	0	6,296.34	537.50
University of Wisconsin	240,005	40	302,458.61	13,361.59	0	13,361.59	13,361.59	0	13,361.59	0
University of Wyoming	89,832	74,695	64,725.46	17,069.78	0	17,069.78	16,554.17	515.61	17,069.78	0
Total	10,783,319	1,020,696	1,473,267.80	935,856.52	97,665.03	1,033,521.55	801,349.64	104,017.14	905,366.78	75,212.44
Institutions for colored students.										
Kentucky Normal and Industrial Institute for Colored Persons	[7]	[7]	[7]	1,255.50	0	1,255.50	1,200.00	55.50	1,255.50	0
Alcorn Agricultural and Mechanical College, Mississippi	[8]	[8]	113,575.00	6,814.50	9,304.72	16,119.22	838.88	8,466.14	9,305.02	6,814.20
Colored Normal, Industrial, Agricultural, and Mechanical College, South Carolina	[9]	[9]	95,900.00	5,754.00	5,132.46	10,886.46	1,200.00	3,582.90	4,782.90	6,103.56
Hampton Normal and Agricultural Institute, Virginia	[10]	[10]	172,156.00	10,329.36	0	10,329.36	10,329.36	0	10,329.36	0
Total			381,631.00	24,153.36	14,437.18	38,590.54	13,568.24	12,104.54	25,672.78	12,917.76
Grand total	10,783,319	1,020,696	15,254,898.80	960,009.88	112,102.21	1,072,112.09	814,917.88	116,121.68	931,039.56	88,130.04

[1] Income derived from leases and sales of timber.
[2] $6.98 bank interest on daily balances.
[3] $2,000 to the North Georgia Agricultural College.
[4] Deficit of $167.23 for the year 1915–16.
[5] Total grant to the State given under Massachusetts Agricultural College.
[6] All land grants combined.
[7] Total grant to the State given under University of Kentucky.
[8] Total grant to the State given under Mississippi Agricultural and Mechanical College.
[9] Total grant to the State given under Clemson Agricultural College, South Carolina.
[10] Total grant to the State given under Virginia Agricultural and Mechanical College and Polytechnic Institute.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1918, No. 42

MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS

DECEMBER, 1918

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NOTE.

The record comprises a general survey in bibliographic form of current educational literature, domestic and foreign, received during the monthly period preceding the date of its publication.

This office can not supply the publications listed in this bulletin, other than those expressly designated as publications of the Bureau of Education. Books, pamphlets, and periodicals here mentioned may ordinarily be obtained from their respective publishers, either directly or through a dealer, or, in the case of an association publication, from the secretary of the issuing organization. Many of them are available for consultation in various public and institutional libraries.

Publications intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

PROCEEDINGS OF ASSOCIATIONS.

1692. **Alabama educational association.** Official proceedings of the thirty-seventh annual convention . . . held at Birmingham, March 28–30, 1918. 154 p. 8°. (Bulletin, vol. 37, no. 1, June 1918) (J. A. Moore, secretary, Jasper, Ala.)

Contains: 1. C. A. Brown: Address of the president [Schools and the war] p. 13–18. 2. Julia C. Lathrop: American children in war times, p. 19–21. 3. N. R. Baker: The superintendent on his job, p. 21–24. 4. Lula Bradford: The human side of the teacher, p. 29–31. 5. Louise Van Sant: How to connect the teaching of history with current events, p. 31–35. 6. J. B. Messick: Mathematics in the war, p. 46–51. 7. E. F. Gochenour: The value of Spanish to the American boy and girl, p. 70–73. 8. L. F. Hawkins: The Smith-Hughes act and vocational education, p. 82–88. 9. Maude Lindsay: An abiding love of literature, p. 95–100. 10. J. R. Kirk: Training all the teachers for all children, p. 100–105.

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1693. **National education association.** Journal of proceedings of the fifty-sixth annual meeting . . . Pittsburgh, Pa., June 29–July 6, 1918. Journal of the National education association, 3:1–78, September 1918.

General Sessions.

Contains: 1. Mary C. C. Bradford: The building of the new civilization, p. 33–37. 2. N. C. Schaeffer: The new program of the National education association—an opportunity and a responsibility, p. 37–41. 3. W. L. Ettinger: The life-career motive in education, p. 41–44. 4. Joseph Swain: The nation and the crisis in its schools, p. 44–48. 5. W. C. Bagley: Education and our democracy, p. 54–57. 6. T. E. Finegan: Training for national service, p. 58–61. 7. L. D. Coffman: Competent teachers for American children, p. 61–65. 8. C. G. Pearse: The enlistment of the profession, p. 65–67. 9. Frederick Peterson: The reconstruction of the race, p. 67–70. 10. G. L. Swiggett: Why should the government train for foreign service? p. 70–73. 11. E. A. Smith: Practical education under federal guidance, p. 76–78.

1694. **North Dakota education association.** Proceedings, thirty-first annual session . . . held at Bismarck, October 31–November 2, 1917. Bismarck, N. D., Tribune printing co. [1918] 234 p. 8°. (W. E. Parsons, secretary, Bismarck, N. D.)

Contains: 1. E. R. Edwards: Educational patriotism, a need of the hour, p. 36–40. 2. N. C. MacDonald: The new American school, p. 41–43. 3. W. B. Thomas: Higher learning and the war, p. 48–55. 4. G. A. McFarland: The teacher as a person of affairs, p. 56–62. 5. Frances N. Dial: The possibilities of the dean of women, p. 70–76. 6. E. S. Keene: Probabilities of visual education in secondary schools, p. 86–89. 7. Joseph Kennedy: Professional preparation and advancement of high school teachers, p. 90–96. 8. R. L. Finney: Social science in the junior high school, p. 129–35. 9. W. W. Norton: Certificating of music teachers in North Dakota and progress of effort to secure credits for music in high schools, p. 154–62. 10. A. E. Minard: Report of the committee on grammar, p. 179–87. 11. C. E. Tingley: Practical hints for parent-teachers association, p. 198–203.

1695. **Pennsylvania state educational association.** Report of proceedings, with papers read before the general sessions, department and round table conferences . . . Session at Johnstown, December 26–29, 1917. Lancaster, Pa., Pennsylvania school journal, 1918. 432 p. 8°. (J. P. McCaskey, secretary, Lancaster, Pa.)

For contents of pages 9–167 of this volume, see separate entries for sections—items 428 and 620.

Department of school directors.—Contains: 1. J. B. Richey: The new education, p. 169–71. 2. C. B. Connelly: Vocationalized schools, p. 171–73. 3. S. R. McClure: A director's look around The truancy problem] p. 176–82. 4. C. A. Herrick: Importance of academic training, p. 184–87; General discussion, p. 187–90. 5. T. B. Shankle: New Kensington vocational school, p. 190–92. 6. C. N. Kendall: Some factors that make good school officials, p. 192–96. 7. Samuel Hamilton: The World war and the school, p. 196–204.

Association of secretaries.—8. J. G. Sansom: Standardization of school supplies, p. 211–12. 9. R. E. Richardson: Election and supervision of janitors, p. 213–14. 10. Mrs. E. S. H. McCauley: Secretary's relation to educational system, p. 217–19.

Child study round table.—11. I. R. Krabill: Helping children to study, p. 223–27.

Rural life and nature study.—12. Margaret Welsh: Some experiences with community clubs, p. 228–31. 13. G. A. Works: Fundamentals in agricultural teaching, p. 231–34. 14. G. A. Works. The use of project teaching, p. 237–40.

Library department.—15. Effie L. Power: Modern high-school library, p. 243–46. 16. H. B. Davis: Professional reading of teachers, p. 246–47.

Department of school patrons.—17. Enola B. Guie: Purposes and welfare of the teacher, p. 257–60. 18. E. E. Bach: Immigrant as an educational problem, p. 261–64. 19. O. R. Lovejoy: Working child and educational problem, p. 267–69. 20. S. E. Weber: What Scranton is doing for the immigrant, p. 269–72.

Department of music.—21. C. S. Stone: What should superintendents expect from music supervisors? p. 273–78. 22. Robert Foresman: Musical and unmusical education, p. 279–84.

High school department.—23. W. A. Stecher: Modern viewpoints as to physical education, p. 288–92. 24. Ida N. Hillis: Modern organization for war, p. 295–305. 25. T. C. Blaisdell: Preliminary report on high school course of study, p. 306–12. 26. Frank Krebs: Commercial high school graduate, p. 331–33. 27. W. D. Lewis: How can our instruction in literature affect the reading habits of our pupils? p. 341–45. 28. Ella A. Johnson: Modern languages in junior high schools, p. 353–56. 29. R. F. Bacon: Science instruction in war times, p. 359–62. 30. D. R. Sumstine: Some lessons from the physical examination of drafted men, p. 363–66. 31. C. B. Pennypacker: Organization and control of high-school athletics, p. 366–69.

EDUCATIONAL HISTORY AND BIOGRAPHY.

1696. **Carroll, Charles.** Public education in Rhode Island. Providence, R. I., E. L. Freeman company, printers, 1918. 500, [1] p. 8°. [Rhode Island education circulars]

Bibliography: p. [491]-494.

Published jointly by the State board of education, the Commissioner of public schools, and the trustees of the Rhode Island normal school.

1697. Dr. Luther Halsey Gulick, 1865–1918: a symposium. American physical education review, 23:413–26, October 1918.

1698. **Keay, F. E.** Ancient Indian education; an inquiry into its origin, development, and ideals. London [etc.] Oxford university press, 1918. 191 p. 12°.

Treats the subject under the following subdivisions: Brahmanic education, Education of some special classes, Buddhist education, Muhammadan education, Popular elementary education, Some general conclusions. A bibliography is appended.

1699. **Miller, Edward Alanson.** The history of educational legislation in Ohio from 1803 to 1850. [Columbus, 1918] 286 p. illus. (maps) diagrs. 8°.

Thesis (Ph. D).—University of Chicago, 1915.

"Private edition distributed by the University of Chicago libraries, Chicago, Illinois."

"Reprinted from Ohio archaeological and historical quarterly, volume XXVII, nos. 1 and 2, January and April, 1918."

Bibliography: p. 266-71.

1700. **Rutledge, Archibald.** A great school and its great master. American education, 22:108–13, November 1918.

The development of Mercersburg academy, a quarter-century of growth.

CURRENT EDUCATIONAL CONDITIONS.

GENERAL AND UNITED STATES.

1701. **Brumbaugh, Martin G.** New world-standard of educational efficiency. American education, 22:114–17, November 1918.

An address delivered at the Pittsburgh meeting of the National education association, 1918.

1702. **Corson, Oscar T.** Our public schools, their teachers, pupils, and patrons. Columbus, Ohio, The author [1918] 302 p. 12°.

1703. **Jones, Arthur J.** Are our schools Prussian in origin? Educational review, 56:271–93, November 1918.

Criticizes Dr. Judd's "Shall we continue to imitate Prussia?" published in School and society, June 29, 1918. Says that "in some respects the Prussian influence apparently retarded the complete development of a truly democratic system." This is evidenced in the over-organization of our schools, and "in the persistence of the idea that an elementary school is a finishing school. There is no evidence to show that this latter idea was directly due to Prussian influence, nor that it ever completely dominated the purpose of the elementary school."

1704. **Miller, H. L.** Adequate schooling for the youth of the nation. Inter-mountain educator, 14:8–15, October 1918.

Continued from the September issue.

1705. **Sandiford, Peter,** *ed.* Comparative education; studies of the educational systems of six modern nations, by H. W. Foght, A. H. Hope, I. L. Kandel, W. Russell, Peter Sandiford. London and Toronto, J. M. Dent & sons, ltd., 1918. 500 p. 8°.

CONTENTS.—1. United States, by William F. Russell.—2. Germany, by I. L. Kandel.—3. England, by Peter Sandiford.—4. France, by Arthur H. Hope.—5. Canada, by Peter Sandiford.—6. Denmark, by Harold W. Foght.

The present volume aims to present for the leading countries of the world the differentiation of their educational systems, basing the study on an analysis of the factors—historical, geographical, ethnological, political, and economic—which determine this differentiation, and more especially on the theory of the state and society held by each people.

371.3 ER

1706. **Schofield, William H.** An American international institute for education. Educational review, 56: 339–51, November 1918.

FOREIGN COUNTRIES.

1707. **[Bagley, W. C.]** The German schools as nurseries of autocracy. National school service, 1: 1, 5–6, November 1, 1918.

German and American systems of education contrasted.

1708. **Ceppellini, Parinio.** War and the school. American journal of school hygiene, 2: 89–94, September 1918.

Translated from the Italian.

A brief summary comment upon the present educational situation in Italy resultant upon the war. The original article appeared in the May 1918 number of "L'Igiene della scuola," under the title "Guerra e scuola."

1709. **Friedel, V. H.** The German school as a war nursery; from the French Pédagogie de guerre allemande, with an introduction by M. E. Sadler. London, Andrew Melrose, ltd. [1918] 270 p. 12°.

Shows how the work of the German schoolmasters made the German people unable to reach the necessary political maturity to assure for themselves, otherwise than by war, an internal and external development in accordance with the general principles of present-day civilization.

1710. **Gollancz, Victor** *and* **Somervell, David.** Political education at a public school. London, W. Collins sons & co. ltd. [1918] 130 p. 12°.

Assumes that the classics are doomed as the basis of a liberal education. Suggests as a substitute therefor the study of politics, history, English literature, and divinity, and describes an experiment in teaching these subjects in an English public school.

370.5 JE

1711. **Hanus, Paul H.** Germany indicted. Journal of education, 88: 451–53, November 7, 1918.

Extracts from an article in Boston Herald, October 13, 1918.

An indictment of the German school system by one who was born in Germany.

370.5 SCS

1712. **Le Verrier, Charles.** Project of the Washington-Lafayette school. School and society, 8: 592–97, November 16, 1918.

This paper was translated from the French by Mrs. Ralph Sanger.

This is the third paper in a series compiled by Henry Fairchild Osborn. The two previous papers told of the conferences in regard to location, character, and aims of the proposed Washington-Lafayette school. The project here given deals with the intellectual education of boys, leaving the physical and moral education for the fourth paper.

370.5 RP

1713. **Mornet, D.** La guerre et l'enseignement après la guerre. Revue pédagogique, 73: 79–89, August 1918.

1714. **Pani, Alberto J.** Una encuesta sobre educacion popular . . . con la colaboracion de numerosos especialistas nacionales y extranjeros y conclusiones finales formuladas por Ezequiel A. Chavez, Paulino Machorro Narvaez y Alfonso Pruneda. Contribución al Primer congreso nacional de ayuntamientos. Mexico, Poder ejecutivo federal, 1918. 313 p. 8°.

A valuable study calling attention to some of the difficulties impeding the diffusion of elementary instruction among the Mexican populace, and suggesting solutions. The opinions and recommendations of numerous prominent educators, and of the Mexican press, are given.

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1715. **Sellers, Edith.** Boy and girl war-products: their reconstruction. Nineteenth century and after, 84: 702–16, October 1918.

The effects of war conditions on young people in England.

1716. **Sydenham,** *Lord.* Education, science and leadership. Science, n. s. 48: 477–84, November 15, 1918.

Presidential address to the annual meeting of the British science guild, June 19, 1918. Discusses the educational situation in England.

EDUCATION AND THE WAR.

1717. **Ames, J. S.** The trained man of science in the war. Science, 48: 401–10, October 25, 1918.

Work of the universities in the war. What men of science have contributed to the military arms of the Government.

1718. **Blakely, Paul L.** War-aim courses in all the schools. America, 20: 45, October 19, 1918.

1719. **Calvert, A. C.** Public schools in the new war cities. American city, 19: 360–62, November 1918.

Describes the plan adopted by the Government for establishing schools for the children of the workers residing in munition reservations. This plan is to be carried out by the Community organization branch of the Ordnance department.

1720. Junior Red cross in school work. Western journal of education, 24: 9–14, October 1918.

Junior Red cross program, Arrangement of courses, Junior Red cross Americanization program, Junior Red cross lessons, etc.

1721. **Lucas, James Oscar.** Our schools in wartime. Progressive teacher, 24: 9–10, October 1918.

Changes in the course of study due to the war.

1722. **St. Louis. Board of education.** War work of the St. Louis public schools. St. Louis, 1918. 161 p. illus. 8°.

Advance print from the Annual report of the Superintendent of instruction, 1917-18.

1723. **Thayer, V. T.** The schools and the war. Wisconsin journal of education, 50: 218–20, October 1918.

1724. **Williams, L. A.** Forced marches for high schools. High school journal, 1 : 10–12, November 1918.

Suggests that the high school program for the year be one of highly intensified and concentrated effort to do all in our power to help win the war quickly.

EDUCATIONAL THEORY AND PRACTICE.

1725. **Finney, Ross L.** The ultimate aim of education. Educational review, 56 : 305–24, November 1918.

Says that in the present epochal crisis of the world educational theory should adopt "an ultimate aim commensurate with the ideals of democracy and Christianity."

1726. **Kendall, Calvin N.** *and* **Mirick, George A.** How to teach the special subjects. Boston, New York [etc.] Houghton Mifflin company [1918] xvi, 310 p. illus. 12°. Riverside textbooks in education, ed. by E. P. Cubberley)

Affords practical assistance to teachers in the mangement of their morning exercises, special-day programs, the organization of the seal work for the smaller children, and in conducting the instruction in music, drawing, physical training, play, nature study, and agriculture.

1727. **Nutting, P. G.** The principles of education. Scientific monthly, 7 : 448–56, November 1918.

Says that "the interrelations between mental, physical, and moral education and general well-being are well known, but rarely taken cognizance of and never made use of for definite ends." Criticizes the methods of training the future expert.

EDUCATIONAL PSYCHOLOGY: CHILD STUDY.

1728. **Parsons, J. Herbert.** Mind and the nation; a précis of applied psychology. London, John Bale, sons & Danielsson, ltd., 1918. 154 p. 8°.

A brief outline sketch of what the author regards as the scope of psychology in its relations to modern problems, including education; also the aids which psychology provides for elaborating practical schemes of reorganization.

1729. **Taylor, James F.** The classification of pupils in elementary algebra. Journal of educational psychology, 9 : 361–80, September 1918.

"An experimental study of the results of dividing a class into three sections according to their ability, and encouraging each section to do work in proportion to their ability. The author considers in detail the effect of this grouping upon both the poorer and the brighter pupils."

EDUCATIONAL TESTS AND MEASUREMENTS.

1730. **Bobbitt, Franklin.** The building principal in the surveys. Elementary school journal, 19 : 106–20, October 1918.

Emphasizes the neglect of treatment in survey reports of the principal's functions.

1731. **Boston. Dept. of educational investigation and measurement.** Arithmetic, determining the achievement of pupils in common fractions. Boston, Printing department, 1918. 38 p. tables, diagrs. 8°. (Bulletin no. XV. [Boston. School committee] School document no. 5—1918)

1732. ———. English, determining the achievement of pupils in letter writing. Boston, Printing department, 1918. 35 p. 8°. (Bulletin no. XVI. [Boston. School committee] School document no. 6—1918)

1733. **Foote, John M.** Report on spelling and penmanship in country schools. Baton Rouge, La., Ramires-Jones printing co., 1918. 30 p. 16°. (Louisiana. Department of education. Bulletin no. 1, June 1918)

By the supervisor of rural schools under direction of the state superintendent.

1734. **Gray, William S.** The use of tests in improving instruction. Elementary school journal, 19 : 121–42, October 1918.

Describes the procedure which has been adopted by the Elementary school of the University of Chicago in improving its instruction through the use of tests.

1735. **Irwin, H. N.** A preliminary attempt to devise a test of the ability of high school pupils in the mental manipulation of space relations. School review, 26 : 654–70, November 1918.

Continued from October number of School review.

1736. **La Rue, Daniel W.** The rationale of testing intelligence, with special reference to testing in the army. Scientific monthly, 7 : 400–12, November 1918.

1737. **Lohr, Lawrence L.** A Latin form test for use in high school classes. High school journal, 1:7–9, 14–17, November, December 1918.

Prepared as a master's thesis in the School of education of the University of North Carolina.

1738. **Mead, Cyrus D.** *and* **Johnson, Charles W.** Testing practice material in the fundamentals. p. 287–97. 8°.

Reprinted from the Journal of educational psychology, May 1918.

Results of a study testing the comparative values of two kinds of practice material in the fundamentals of arithmetic with 200 pupils divided into groups.

1739. **Stickland, Georgina I.** The influence of practice on the correlation of abilities. Journal of educational psychology, 9 : 393–99, September 1918.

"A study of the reaction of 15 college students to the five tests, color-naming, tapping, adding, multiplying, and word-building. There is a gradual increase in the amount of the correlation up to the fifteenth or twentieth trial, when the correlation remains stationary or even declines somewhat."

SPECIAL METHODS OF INSTRUCTION.

1740. **Knapp, Charles.** Dr. Flexner's critics. Classical weekly, 12 : 9–10, 17–18, 25–26, 33–35, October 14, 21, 28, November 11, 1918.

An editorial review of the arguments for and against Dr. Flexner's Modern school.

1741. **Painter, George S.** The psychology of visual instruction. Journal of the New York state teachers' association, 5 : 210–17, October 1918.

SPECIAL SUBJECTS OF CURRICULUM.

1742. **Allen, Genieve M.** Developing and testing appreciation of literature. Education, 39 : 139–41, November 1918.

1743. Anthropology as a university subject. New Zealand journal of science and technology (Wellington, N. Z.) 1 : 258–64, September 1918.

A series of letters by noted educational men of England, showing the cultural and educative value of anthropology.

1744. **Brooks, Fowler D.** The upper grade history teacher's opportunity. Normal instructor and primary plans, 28 : 47–48, November 1918.

Discusses methods, current events, social and industrial problems, and liberty and our free institutions.

1745. **Clément, Marguerite.** L'enseignement du français aux États-Unis. Revue de l'enseignement des langues vivantes, 35 : 345–47, August-September-October 1918.

Tells of the opportunities for Frenchwomen in teaching French in America.

1746. **Committee to inquire into the position of natural science in the educational system of Great Britain.** Report of the committee appointed by the prime minister to inquire into the position of natural science in the educational system of Great Britain. Presented to Parliament by command of His Majesty. London, H. M. Stationery office, 1918. 86 p. f°. (Cd. 9011.)

1747. **Elbert, J. Aloysius.** Modern language text-books. America, 20 : 93–94, November 2, 1918.

Speaks particularly of German texts.

1748. **Evans, George W.** The reconstruction of the mathematical requirement. Mathematics teacher, 11 : 26–33, September 1918.

The mathematical requirement in the high school.

1749. **Hathaway, Esse V.** The building of an English course of study. English journal, 7 : 526–32, October 1918.

Work of the Des Moines English association.

1750. **Heffron, John L.** The importance of the classics in education, from the standpoint of medicine. School and society, 8 : 518–21, November 2, 1918.

Read before the Classical section of the New York state teachers' association.

1751. **Leo, *Brother*.** The feeling for literature. Catholic educational review, 16: 210–19, October 1918.

A paper read at the meeting of the Catholic educational association, San Francisco, July 24, 1918.

The writer says that the problem of English teaching will never be solved until the teachers experience a feeling for literature, a love for good books.

Also in Catholic school journal, 18:251–52, 275, November 1918; Educational review, 56:294–304, November 1918.

1752. **Lovell, Grace.** Some psychological aspects of the teaching of Latin. American schoolmaster, 11: 340–49, October 15, 1918.

The contribution of Latin to the aims of education and the adaptation of the course of study to these aims.

1753. **Perkins, Albert S.** Report of the committee on questionnaire. Classical journal, 14 : 84–96, November 1918.

Questionnaire regarding classical education sent to teachers of Latin and Greek, school superintendents, instructors of pedagogy and educational psychology in normal schools and colleges. Report read at the 13th meeting of the Classical association of New England, March 23, 1918.

1754. **Pound, Olivia.** High school Latin and the newly formulated aims of secondary education. Classical journal, 14 : 111–18, November 1918.

Says that Latin makes an important contribution to the pupils' vocational, civic, ethical, and aesthetic education.

370.5 EN

1755. **Scott, Frank W.** The relation of composition to the rest of the curriculum. English journal, 7 : 512–20, October 1918.

Advocates teaching more rhetoric, more study and reading of good English prose by college students.

1756. Teaching, vol. 4, no. 3, October 1918. (Methods in physics and elementary science.)

Contains: 1. J. P. Drake: Progressive changes in the teaching of physics, p. 4–6. 2. E. A. Stewart: Physical science in the grades, p. 6–10. 3. Florence G. Billig: A study of the atmosphere by an elementary science class, p. 11–14. 4. E. V. Floyd: Household physics: its nature and presentation, p. 15–18. 5. Elizabeth Morgan: Electricity in the home, p. 19–21. 6. J. P. Drake: Laboratory experiments and equipment for high schools, p. 27–32.

KINDERGARTEN AND PRIMARY SCHOOL.

370.5 RP

1757. **Aubin, A.** Les exercices de récitation à l'école primaire élémentaire. Revue pédagogique, 73 : 1–23, July 1918.

1758. **Binzel, Alma L.** General character and work of measurements in the grades and the need of these in the kindergarten field. Kindergarten and first grade, 3 : 353–57, November 1918.

Paper given before the International kindergarten union, Chicago.

1759. **White, Jessie.** Progress of the Montessori method in England. School guardian (London) 43 : 277–79, October 19, 1918.

1760. **Woodward, Elizabeth A.** The children's year and the opportunity of the kindergarten for conservation work in congested cities. Kindergarten and first grade, 3 : 366–70, November 1918.

Address given before the Kindergarten department, National education association.

Divided into five parts, as follows: (1) The children's year; (2) Americanization work conducted by kindergartners in congested cities; (3) The part the kindergarten is to play in the child conservation program; (4) The right of every child to be admitted into the public schools at the age of four; and (5) Further suggestions for a war modified program.

RURAL EDUCATION.

370.5 NE

1761. **Carothers, W. H.** Preparation of a village superintendent. Journal of education, 88 : 396–98, October 24, 1918.

Discusses problems which are peculiar to village education.

370.5 AMS

1762. **Finney, Ross L.** The relations of the village principal to his board. American school board journal, 57 : 23–24, November 1918.

"The functions and relations of the supervising principal from his own standpoint. The author writes from many years of experience and observation."

370.5 AMS

1763. **Fogarty, W. S.** Transportation of school children. American school board journal, 57 : 25–27, 69–70, November 1918. illus.

C K 41 J

1764. **Lewis, Charles D.** An investigation of the comparative standing of pupils from one-teacher elementary schools and graded schools when working together in the high school. Kentucky high school quarterly, 4 : 3–16, October 1918.

The writer says in conclusion, "In spite of the fact that Kentucky is behind in education, especially in its rural schools, the pupils from these schools, with a short term and poorly paid and trained teachers, have not only held their own, but slightly surpassed those from the graded schools of towns and villages . . ."

1765. **Pyle, W. H.** *and* **Collings, P. E.** The mental and physical development of rural children. School and society, 8 : 534–39, November 2, 1918.

Says that country girls excel country boys at every age. There is more difference between city and country boys than between city and country girls. There is more difference between country girls and boys than between city girls and boys. It therefore follows that the country girl shows up more favorably mentally than the country boy.

SECONDARY EDUCATION.

1766. **Edmondson, J. B.** Advertising high-school opportunities. American school board journal, 57 : 29–31, November 1918.

The aims of high-school publicity, selection of facts for publicity, etc.

TEACHERS: TRAINING AND PROFESSIONAL STATUS.

1767. **Bagley, W. C.** The status of the classroom teacher. School and home education, 38 : 59–61, November 1918.

A paper presented before the Department of classroom teachers, National education association, Pittsburgh, July 2, 1918.

1768. **Cattell, J. McKeen.** Life insurance and annuities for academic teachers. School and society, 8 : 541–49, November 9, 1918.

Discusses the inability of the Carnegie foundation for the advancement of teaching to pay its annuities and its proposal to establish a contributory and compulsory system of annuities.

1769. **Life, Frank M.** Practice teaching for high-school teachers. School review, 26 : 671–83, November 1918.

Study based on questionnaire sent to the heads of departments of education of the various States throughout the United States. Says that the average number of practice-teaching students per institution per year is vastly less than the capacity for giving this work.

1770. **Martin, T. T.** A practical and ideal county institute—its essential factors. Educator-journal, 19 : 129–33, November 1918.

1771. **National council of normal school presidents.** Report of committee of normal school standards and surveys. Wisconsin journal of education, 50 : 221–24, October 1918.

The report is divided into three parts, as follows (1) The purpose, scope and relations of the normal school; (2) Some proposed standards; and (3) How schools may survey themselves, and cooperate with the committee in revision and closer definition of the standards.

1772. **Purcell, Helen E.** Chorus-girl personalities vs. teaching personalities. American school board journal, 57 : 31–32, November 1918.

Gives the minimum qualities for which superintendents and school boards should look when selecting a teacher.

1773. **Smith, R. R.** The married woman teacher. American schoolmaster, 11 : 356–59, October 15, 1918.

Reprinted, by permission, from The Public, New York city, issue of June 22, 1918.
Arguments in favor of the married woman teacher.

1774. **Stimson, Rufus W.** Professional improvement work for teachers of high school agriculture. American education, 22 : 69–71, 117–19, October, November 1918.

1775. **Taylor, W. S.** Project methods in teacher-training courses. School and society, 8 : 487–90, October 26, 1918.

Paper prepared for Department of rural and agricultural education, National education association, Pittsburgh, 1918.

1776. **Updegraff, Harlan.** Teachers' salaries and the increased cost of living. American school board journal, 57 : 22, 63, November 1918.

This paper is an extract from an address delivered before the "Pennsylvania schoolmen's week," University of Pennsylvania, April 11–13, 1918.

1777. [Whitbeck, Ray Hughes.] Geography teachers. Journal of geography, 17 :107–10, November 1918.

Discussed under the following headings: The making of a teacher; Education and training; Unsatisfactory results of geography teaching; Need of more geography in normal schools; and Partial remedies.

370.5 EL

1778. Withers, John W. The training of teachers in service. Elementary school journal, 19 : 95–105, October 1918.

Method of training teachers in St. Louis, Mo. Work of the Harris teachers college.

HIGHER EDUCATION.

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1779. Anderson, L. F. "University of Michigania." Nation, 107 : 550–51, November 9, 1918.

Review of the act creating the University of Michigania. Strange terminology of its provisions for centralized educational control; remarkable nomenclature of the sciences.

370.5 E

1780. Coulter, Charles W. Should the college student borrow? Education, 39 : 170–75, November 1918.

On paying one's way through college. Says that the old commercial maxim is applicable also to academic financiering: "There are times when it pays to borrow."

SCHOOL ADMINISTRATION.

1781. [Answers to a letter by state superintendent F. B. Pearson to the members of the Committee on school policy of the state of Ohio] Ohio educational monthly, 67 : 398–410, October 1918.

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1787. The small board of education. School, 30 : 62, 77, October 10, 17, 1918.

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1798. **Heizer, W. L.** *and* **Gilbert,** *Mrs.* **V. O.** Health and sanitation through the public schools of Kentucky. [Frankfort, Ky., The State journal company, 1918?] 183 p. illus., diagrs. 12°.

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1802. **Kleeberger, F. L.** Essentials of physical education in relation to military training in public schools. School and society, 8 : 529–31, November 2, 1918.

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Why physical education as conducted in our universities has failed to contribute to the physical welfare of our country. A plan of reorganization by which this department may be made more effective and influential in maintaining national health and vigor.

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1808. **Green, Jenny Lind.** Character-building content of arithmetic. Mathematics teacher, 11:36–41, September 1918.

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1809. **Peters, Charles Clinton.** Human conduct; a textbook in general philosophy and applied psychology for students in high schools, academies, junior colleges, and for the general reader. New York. The Macmillan company, 1918. xii, 430 p. 12°.

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1811. **Council of church boards of education.** Religious work at state institutions. American college bulletin, 1:1–22, June 29, 1918.

1812. **Hoben, Allan.** The church school of citizenship. Chicago, Ill., The University of Chicago press [1918] 177 p. 12°

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1813. **Wells, Wesley R.** The theory of recapitulation and the religious and moral discipline of children. American journal of psychology, 29:371–82, October 1918.

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1821. **Fontègne, Julien.** Comment se pose la question d'orientation professionnelle. Éducation, 10:163–77, June–September 1918.

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1824. **Smart, Thomas J.** The policies of state superintendents toward students entering agricultural employment during the war. School and society, 8:481–87, October 26, 1918.

The policy of giving credits for farm work.

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The purpose of this study is not so much to record the details of engineering teaching in the various schools as to examine the fundamental question of the right methods of teaching and of the preparation of young men for the engineering professions: to examine the curriculum of to-day and the methods of teaching now employed, and to suggest in the light of 50 years of experience the pedagogic basis of the course of study intended to prepare young men for the work demanded of the engineer of to-day.

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1835. **Smith, John F.** Our neighborhood; good citizenship in rural communities. Philadelphia, Chicago, The John C. Winston company [1918] 262 p. illus. 12°.

1836. **Stickle, W. A.** History and civics as a training for citizenship. School (Toronto), 7 : 168–73, November 1918.

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1840. **Hibben, John G.** *and* **Schurman, Jacob G.** The university cantonment. Bookman, 48: 288–95, November 1918.

Describes the Students' army training corps of Princeton and Cornell.

REEDUCATION OF WAR INVALIDS.

1841. **American academy of political and social science.** Rehabilitation of the wounded. Philadelphia, American academy of political and social science, 1918. 164 p. 8°. (Annals of the American academy of political and social science, vol. 80, no. 169, November 1918)

Contains: 1. F. D. Patterson: Industrial training for the wounded, p. 40–42. 2. Margaret A. Neall: Philadelphia school for occupational therapy, p. 58–61. 3. C. A. Prosser: A federal program for the vocational rehabilitation of disabled soldiers and sailors, p. 117–22. 4. J. P. Munroe: The advantages of national auspices of re-education, p. 123–30. 5. T. B. Kidner: Vocational work of the invalided soldiers' commission of Canada, p. 141–49. 6. Henry Chellew: Plans for the education of disabled and convalescent officers of British and allied forces, p. 153–57.

1842. **Chaney, Augusta Scott.** The modern status of the war cripple. Southern workman, 47: 529–34, November 1918.

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1844. **Williams, Jesse F.** Conservation of the nation's most valuable resources. Educational review, 56: 325–38, November 1918.

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1846. **Larrison, Eleanor R.** The association of boys and girls in the teens. Education, 39: 142–48, November 1918.

Discusses coeducation in secondary schools.

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A paper read before the Conference of women's colleges at the annual meeting of the Catholic educational association, San Francisco, Cal., June 24, 1918.

Discusses the subject of cooperation and centralization among Catholic colleges for women.

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A résumé of the various activities of Hampton institute, Va. Illustrated.

EDUCATION OF BLIND AND DEAF.

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One of the prize essays written for the American association to promote the teaching of speech to the deaf; the subject being: "Teaching and training little deaf children in the home from infancy to school age." To be continued.

1850. **Kinzie, Cora Elsie** *and* **Kinzie, Rose.** Kinzie method of speech-reading for the deaf. Volta review, 20: 627–30, October 1918.

Continued from September number.

EXCEPTIONAL CHILDREN.

1851. **Nicholson, A. F.** The present day problem of juvenile delinquency. Child (London) 9: 1–16, October 1918.

Conditions in England described.

EDUCATION EXTENSION.

1852. **Bosanquet, Helen.** A great opportunity. Contemporary review, 114: 396–401, October 1918.

A plea to men and women who have enjoyed a liberal education to take a large share in the work of the continuation schools of the future, including the active teaching and guiding of young people.

1853. **Moyer, James A.** Correspondence courses, department of university extension. Educational standards, 6: 21–25, November 1918.

The work of the department of university extension of the Massachusetts board of education.

1854. **Wilson, G. M.** Extra summer session credit. School and society, 8: 444–49, October 12, 1918.

Gives a summary of the practices of 56 higher institutions with reference to permitting students of maturity and ability to carry extra work in the summer session.

LIBRARIES AND READING.

1855. **Barnes,** *Mrs.* **Harold.** Learning patriotism from books. Public libraries, 23: 416–19, November 1918.

Read at the Conference on children's reading, Grand Rapids, Mich., April 4, 1918.

1856. **Clapp, John M.** Reading aloud: War-time suggestions. [Charleston, Ill., Eastern Illinois state normal school, 1918] 13 p. 8°. (The Normal school bulletin, no. 61, July 1, 1918)

1857. **Koch, Theodore W.** Books and bullets. American review of reviews, 58: 503–8, November 1918.

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The American library association's war service; our army a reading army; books in 40 different languages and on every conceivable subject; duties of a camp librarian; giving the soldier the book he needs when he wants it.

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INSTRUCTION IN ART IN THE UNITED STATES

By

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[Advance sheets from Biennial Survey of Education in the United States, 1916–1918]

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INSTRUCTION IN ART IN THE UNITED STATES.

By WALTER SARGENT,
Professor of Art Education, University of Chicago.

CONTENTS.—Introductory—Art instruction in elementary schools—Art instruction in high schools—Art instruction in universities—Art museums and art schools.

The term "art education" is used somewhat loosely in connection with a wide range of school activities. Any discussion of the subject must therefore define somewhat arbitrarily the aspects with which it will deal.

This chapter includes the following:

1. Drawing, painting, and constructive and decorative design, whether used to record facts of form and structure in connection with industrial and scientific work, or to interpret forms and appearances pictorially or decoratively.

2. The advancement of artistic appreciation, whether gained by technical practice or by acquaintance with good art through some approach other than that of actual production, or by a combination of these methods. In the discussion of the advancement of artistic appreciation without technical production, the whole field of fine and industrial art is included. In the discussion of technical work, only the graphic arts as just defined are taken into direct consideration.

The material here presented is based upon the replies to inquiries regarding recent changes in aims and methods of art instruction, sent to State commissioners of education, and to the superintendents of schools in the three largest cities of each State, to the art departments of State and other leading universities, and upon an examination of a wide range of courses of study and of reports of art associations and educational meetings where art was a subject of discussion. A survey of this material shows a number of significant changes, which may be broadly grouped as follows:

1. The changes due to the normal development to be expected along lines where progress has long been continuous. Prominent among these are—

(*a*) A clearer understanding, which has come through experiments and longer experience, regarding what art instruction should accomplish as a part of general education, and the consequent revision

and improvement of methods of teaching. These have been especially evident in elementary and secondary schools and in colleges.

(*b*) A better knowledge of the social and industrial values of advanced art training for those with special aptitude, and the consequent modification of advanced art education to meet these needs. These modifications are noticeable in the programs of vocational schools and professional art schools, of art departments in colleges, in the broader range of educational activities carried on by art museums, in the associations recently formed for bringing art instruction into closer relation with social and industrial needs, and in new art schools intimately related to community interests.

2. Changes due to the present abnormal conditions of war. Among these are—

(*a*) A revaluation of the effects of art in shaping public opinion and in stimulating patriotic activities, and in reenforcing those attitudes of mind which we include under the term "morale."

(*b*) A revision of methods of drawing in connection with constructive work, because of the shortcomings of methods which have been in fairly common use; shortcomings which attempts to train enlisted men in constructive work have made evident. These attempts have emphasized the fact that ability to read working drawings accurately and to make dimensioned sketches, mechanical or topographical, with facility, is not common, even among those who have had high-school courses in drawing. It is an ability which the present crisis imperatively demands.

(*c*) A realization of the probability that in the commercial revival which is certain to follow the war, and because of the consequent need of highly skilled designers in the industries, the United States must depend more than heretofore upon those trained in its own schools, and must therefore begin even among pupils of secondary school age to conserve and direct special talent when it is discovered.

These changes are considered in detail under the separate divisions which follow.

ART INSTRUCTION IN ELEMENTARY SCHOOLS.

Art instruction in elementary grades has been quite general throughout the country for some years. Recent changes have been mainly along the line of normal development. Among the important directions in which progress is apparent are the following:

The tendency emphasized above all others in the returns received from superintendents of schools and from supervisors of art instruction is in the direction of bringing art instruction into more direct and intimate connection with school and home and community interests. The specific points of contact most emphasized are the following:

1. More use of drawing to illustrate other school subjects. This indicates a tendency to go to the other school interests for themes for drawing, instead of selecting themes arbitrarily for the purpose of developing a logical but detached course in drawing. In this way the correlation with other subjects becomes the first business of the art supervisor, and is not left to chance.

2. An especially close correlation with the manual arts. This means that much of the drawing and design is directly concerned with problems in industrial work and in the household arts. In many places this correlation is being promoted in an administrative way by uniting the departments of drawing and of the industrial arts under one supervisor.

3. More definite attention to developing appreciation of good pictorial art and of excellent constructive and decorative design. The majority of returns indicate that the sort of appreciation desired is that which will increase the range and quality of one's enjoyment in his surroundings, and especially will enable one to exercise good taste in home planning and furnishing, in promoting community projects, and in producing material for the market.

These purposes are not new in elementary art instruction. Published courses have long stated them more or less definitely as aims, but an analysis of recently formulated courses shows an essential difference in method, namely, a tendency to abandon a detached course of instruction planned mainly from the point of view of logical progression in the subject in the hope that the principles and practice gained thereby will be carried over and put to use in fields where they are needed. This somewhat formal work is being displaced by courses in which principles and practice are concerned mainly with problems selected from the field of immediate needs. This procedure appeals to the instant interests of a far greater number of children, and its direct result is to make drawing a general rather than a special school subject.

The history of drawing in public education has been such as to create a tradition that it is a special subject in the sense that it is possible of attainment only for those who have special talent, and that it has value mainly for those who may later have occasion as artists to use it. This tradition has tended to take the vitality out of the instruction given by grade teachers because they felt that drawing was neither possible nor worth while for the majority. It has also tended to some extent at least, to concentrate the enthusiasm of the special teacher with art-school training upon the few pupils who displayed unusual artistic apitudes.

The last two years have contributed considerably toward making drawing a general school subject as regards its availability and value for the majority of children. This contribution has been made

partly through psychological study of special talent and partly through results obtained by applying general pedagogical principles to the teaching of drawing. Observation shows that the mere sight of nature's appearances awakens in certain children a peculiar type of experience and of interest, one characteristic of which is a strong desire to represent graphically what they have seen. In the case of these children the simple presentation of objects arouses this peculiar interest, together with a corresponding desire to express it by reproducing the appearances in drawing or painting. They are the children who have what is termed "special talent." When analyzed, this talent appears to be essentially a special type of interest in appearances of things and not a special manual ability or skill. The skill in drawing which these children display seems to be a natural outgrowth of the practice which this peculiar interest in appearances and the consequent desire to draw them promotes.

This view is supported by the fact that if an interest of another sort, but equally strong can be awakened in connection with the appearance of objects, for example an interest in their construction, which can be expressed best by drawing, as in the frequent cases of children greatly interested in engines, bridges, boats, etc., the drawing will be equally good, although different in type.

Experiments indicate that if we can awaken an equal, although different, interest on the part of children without so-called "talent" for drawing, they will develop equal skill, provided the interest is of a sort that can be most adequately expressed by drawing. Frequently children who show under ordinary circumstances no indications of talent, when the appeal to their particular interest is found, equal or surpass in skill those who appeared at first to be gifted artistically. Elementary school courses in all subjects are appealing to interests many of which demand drawing of some sort for their expression and practical realization. In geography and history, shapes of countries, types of mountains, means of transportation and numberless other topics need for their description drawing as well as language. School and home gardens are planned by diagrams. It has become the common language of the school shop and of the household art department.

Drawing as a means of expression for this widening range of interests is rapidly supplanting the drawing of a few years ago, when frequently the only interest appealed to was that of representing appearances for their own sake. Lack of special talent in drawing, as an excuse for low grades in that subject, is coming to be regarded in the same light as is lack of special talent in mathematics and in language when elementary school attainments in those subjects are under consideration.

A survey of recent discussions regarding the purposes of drawing in elementary schools indicates that the familiar statement that drawing is a language is now being taken in its full significance. Educators are pointing out that any new medium of expression furnishes a fresh kind of experience with things studied, and starts a type of thinking that a medium of expression different in character does not stimulate. The kind of thinking exercised when a pupil describes a subject by drawing does not duplicate to any great degree that involved in description by writing. The first appears rather to supplement the second. Each lays hold of aspects which the other neglects and fails to grasp. The terms used in drawing are essentially different from those used in writing and describe things in a different way. Each has its own psychology and compels its own characteristic type of analysis and synthesis.

As an outcome of these discussions one finds that art instructors are stating with increasing clearness the function of drawing as an important and unique means of approach to subjects; a means of dealing with topics in a way which supplements that furnished by verbal language and consequently gives a kind of experience with them that is otherwise unobtainable.

The changed attitude regarding drawing and design may be broadly summarized in the following statements:

1. That the tendency is less toward trying to interest children in drawing as a subject, and more toward using drawing as an efficient and unique means of expressing and promoting whatever interests school and home and community life have awakened.

2. That instruction in design deals less with formal exercises, in arrangement, and more with problems directly and practically concerned with school and home surroundings and with industrial life. The methods of instruction are coming to include, in addition to practice in producing designs, much experience in choosing as one must choose when he makes actual purchases.

Although an examination of recent courses and of the reports of conferences on the subject of art instruction gives abundant evidence that courses are being reorganized upon the same basis as other subjects, and are being graded so that there is definite progress from year to year and that the expected results are within the attainment of the majority of children, and also that the psychology of drawing and of art appreciation is being investigated by educators, nevertheless such a survey of courses and of reports of conferences discovers little in the way of attempts to state what standards of attainment may reasonably be expected in each grade and at the end of elementary school work. Indeed, expressions suggestive of hostility toward attempts to establish tests and scales of measurement

of achievement in drawing are frequently evident. These objections appear to result from misunderstanding a desire to secure some system in presenting the language of art expression, as being a wish to mechanize the thought and feeling expressed thereby. Fortunately, however there is a growing recognition of the fact that systematic mastery of a means of expression means increased freedom in communicating thought and feeling.

Prof. Edward L. Thorndyke called attention to the desirability of some scale for estimating attainment in drawing, in an article published in the Teachers College Record in November, 1913, entitled "The Measurement of Achievement in Drawing." He says:

> Each person uses a scale of his own. Consequently, although we give in verbal statements and on report cards many millions of measurements of achievement in drawing every year, almost no use is made or can be made of them. A child may learn that his drawings are, in his teacher's estimation, better than those of other children in the same class who get lower "marks," but he does not know how much better they are. He may be told that his drawings are better than those of last week, but not how much better they are. As to learning from all these millions of measurements how much better drawings are obtained from 100 minutes of training per week than from 50, or how much better drawings are obtained by one city's system of instruction than by another's, or how much better drawings are obtained in the same city now than were obtained a decade ago, it is impossible.

Prof. Thorndyke then explains a scale which he worked out, describes and illustrates some of its uses, recounts the principles of its derivation, and makes clear its limitations. Further careful work in the same field is being carried on by other investigators, and additional contributions will doubtless be available soon.

The effect of the war, which has greatly influenced industrial work in elementary schools, is also evident in art instruction. Many of the problems for design have included the making of posters for food conservation, war-savings and thrift stamps, liberty loans, gardening, Red Cross and Y. M. C. A. work, etc. Other design projects have included covers for scrapbooks for soldiers, designs and decorations for toys for refugee children, and the patterns and ornamentation of various objects to be sold for war funds.

ART INSTRUCTION IN HIGH SCHOOLS.

High-school courses of the past two years indicate some significant and a few radical changes. Two influences among others have been particularly strong in bringing about these developments. One is the widespread organization of junior high-schools, which has resulted in a closer articulation of elementary and secondary schools. The other is the rapid progress of vocational education.

The organization of junior high-schools has brought into prominence many psychological as well as administrative questions. Edu-

cators especially interested in these questions have contributed, among other things, important considerations regarding some of the differences in the attitude of high-school students toward school work as compared with that of elementary school children.

One difference appears to consist in greater need on the part of pupils for some practical or intellectual justification for the work undertaken. The fact that certain studies appear in the accepted curriculum no longer appeals to the majority of the pupils as being a sufficient reason for undertaking these studies with enthusiasm. In addition the significance of the course to them and to their prospects must be understood if it is to engage their whole-hearted endeavor. New social and vocational interests are awake and must be ministered to.

Another interest which influences art instruction directly and which appears to be much stronger in high-school pupils than in those of elementary school age is the interest in the theories and principles of the subjects of study and in the historical development of things and of events. Accompanying this interest is an increased capacity for developing some genuine appreciation of artistic styles and of the different possibilities of various mediums of expression.

The progress of vocational education is recognized in the recent tendencies of art instruction in high-schools as noted by school superintendents and by instructors in art. Almost without exception the changes reported are toward a more direct and concrete application of art. The following quotations, entirely typical of the expressions found in a wide range of returns, are merely statements in different terms of this tendency:

The primary purpose of our art is to relate it to the entire life of the children both in home and in their occupations.

An effort to adapt instruction to the requirements of local industries.

Tends more and more toward industrial work.

Vocational art courses, art related to printing, courses in home æsthetics.

Have started such work as art in window dressing with practical application in stores, * * * art in dress, * * * dress appropriate to occasions.

Collection and study of good illustrations of furniture.

Much emphasis recently given to having designs worked out in material. * * * Advanced courses are highly differentiated with high technical standards demanded.

In addition to this concrete tendency, there is on the other hand an increasing recognition of what are commonly called the cultural values of art study, its importance as historical material, and its significance, in common with music and literature, as an embodiment of the æsthetic experiences of the race.

The following extracts from a report by Dr. James P. Haney, director of art in the high schools of New York City, put in clear terms some of these tendencies.

This training in what may be called "practical æsthetics" has thus become a subject of keen interest on the part of many who are engaged in the business of creating materials for home or personal adornment. * * * Both "the public" and "the trade" understand more clearly with every passing year the need of this training; the public that life itself may be made more pleasurable; the trade that its standards may be raised in every aspect wherein art touches industry. The milliner, the dressmaker, and jeweler are interested on the one hand; the furniture manufacturer, the wall-paper dealer, and the textile merchant on the other. Many additional trades are concerned. * * * Now, as never before, these merchants and dozens more are asking, "What are the schools doing to make their art teaching practical?" * * *

The older barriers which separated the school studio from the industrial art studio outside the school have been breached and in some cases quite torn down. Art teachers in numbers have visited "the trade" and have brought back a course of practical suggestions to the classroom. Counter visits have been paid by merchants and manufacturers to the schools, and many have sent their trade designers to see the school work and to give to the teachers and pupils the industrial point of view. Practical problems have been worked out in material, and not a few competitions have been instituted by trade representatives that pupils might see how immediately useful in business is the information gained in the school. * * *

Every one must patronize the industrial artist, for all must have chairs and tables, dishes to eat from, and clothes to wear, and emphasis has been placed on the professional nature of the work of the school that the student might be made keener to scrutinize the professional hand which he sees about him at every turn. * * *

Many thousands of pupils are thus reached every year and are encouraged to visit the museum frequently to enjoy not only the pictures and sculpture, but the splendid carvings, beautiful enamels, the glowing porcelains and the priceless tapestries. Thus they are given what may be called "museum habit." They are taught not only where to look but how to look and are given something at least of the satisfaction of "the knowing one," the connoisseur whose affection is drawn by insight into the beauties of the craft which are displayed in jeweled cup or damascened armor. This interpretation of the museum to the school pupil, this revelation of what pleasure may be had in this scrutiny is held to be one of the functions of the art department of the city school system. It can little profit a city to have within its borders priceless collections, if these for whom the collections are shown see its beauties as through a glass darkly. * * *

This training, it is manifest, is not to be given by talking about it, but rather by continually offering to the learner problems in which choice must be expressed in terms of immediate need. Shall one, for example, in designing a flower bowl, turn the curve thus, or shall it be so? The decision as to which line best expresses the quality of the clay and the purpose for which the bowl is shaped is the decision which makes for taste. Taste in other words is a discriminative judgment born of many opportunities for choice. Some grow in taste rapidly, some slowly, but the process is always the same. One must learn to choose and to choose by virtue of the knowledge of what makes for better line or color or pattern. Taste is thus not a thing of definite standards. It is rather an intellectual quality. It is a habit of mind which seeks always to compare the better with the poorer and which strives continually to sharpen its own perceptions that it may judge more truly. It has a critical function but a constructive one which aims not only to see that the thing is better but aims to know why it is better. * * *

The merchant who is a bad designer will seldom be cured by admonition. The only way to cure him is to catch him while he is still a lad at school. But granted, on the other hand, that such practical teaching can be given—and it surely can—it must be plain that there resides in the teaching of the schools enormous force to affect the art ideas of the public for the better. This force undoubtedly is at work. No one who knew the American home and its decorations as it stood in the early seventies and now sees the home of the persons of equal social standing will doubt for a moment that great progress has been made. It is a change which has taken place all over the country, but most significantly where the art teaching of the schools has been active. Something of this idea that everyone is an artist in his own right has dawned upon thousands of men and women. * * *

But with the development of that which we have called the modern art teaching there has been a great change in the attitude of the school toward talented pupils—that little group which we have called "the few." It has been plainly seen that it is to the advantage of the school to hold those gifted boys and girls within the character-shaping boundaries of its walls. On the other hand, it has been seen that it is to the pupils' interest to stay rather than to leave half trained in all that makes for general culture and to plunge at too early an age into the ceaseless grind of business life. For these reasons the modern high school seeks to retain the talented pupil through its entire course. Instead of fitting the pupil to the course, it now devises special courses to fit the pupil. It recognizes that talent is precious, and when it finds it, does all it can to cultivate the gifted and to school them to high technical experience.

Certain difficulties are evident in the organization of high-school courses in art, especially in the case of small schools.

1. There are seldom any accepted standards of attainment in art instruction in elementary schools which can serve as a dependable basis upon which high-school courses may be planned.

2. A large number of high-school instructors have been accustomed only to art school ways of teaching drawing and design. These studio methods are generally adapted only to those who possess special aptitudes for drawing. This difficulty is being remedied because cities and towns in increasing numbers are requiring that the instructor in art shall have some normal training, including general principles of education and practice teaching under skilled supervision.

3. Except in the larger high schools, where a number of classes exist, it is difficult to arrange a course which offers progress from year to year, because frequently pupils from each year in high school may register in a given class. For example, an introductory class in drawing may be made up of pupils from the first, second, third, and fourth year groups. Under these circumstances difficulty is found in relating art instruction to other school interests and to varying degrees of maturity with any sort of definiteness. This condition tends to encourage the treatment of art as a special subject. The increased amount and better organization of vocational and industrial courses is improving this situation rapidly and definitely.

4. In the past the amount of credit allowed in art toward graduation and for entrance to higher institutions was often small. Consequently, registration for art instruction was likely to be limited to those who had very strong natural desires in that direction and those who had leisure for extra courses. This hindrance is rapidly disappearing. High schools are tending to give the same credit toward graduation for art subjects as for any others in the curriculum. To a corresponding degree, higher institutions have become liberal in the number of units in the arts allowed for entrance requirements.

In addition to these obstacles, which are largely administrative in character, courses planned to realize the æsthetic values of what are commonly termed the fine arts encounter another difficulty which lies in the nature of the subject. In 1915 Dr. C. H. Judd pointed this out clearly. The following extracts are the first and the last paragraphs of his discussion:[1]

> The fine arts, like the manual and industrial arts, have stood apart from the conventional academic subjects and have been given only a half-hearted recognition in the organization of school programs. From one point of view this is difficult to understand, for civilized nations have always regarded training in music and drawing as highly desirable accomplishments. We in America have been subjected to criticism by foreign visitors and we have freely criticized ourselves for our meager cultivation of the fine arts in our schools. While thus recognizing the arts as desirable, we have found it a very difficult problem to make them available for school purposes. How can one formulate a course in these subjects? They seem to be highly individualistic and vague in their results. There seems to be so large an element of chance in the outcome that we turn by preference to those courses of instruction which seem to be more definite and capable of impersonal formulation. * * * Whatever the method of instruction, art teachers must give up the practice of indulging in rhapsodies over art and its value, and must learn to define the types of appreciation which they wish to cultivate. They must show that they know when they have produced one of these approved types of appreciation. Finally, they must by practical demonstration convince the world that there is no fundamental opposition between the habits of mind and action cultivated in the arts and those cultivated in the scientific courses given in the schools. The present-day conditions are a challenge to art teachers and to all of us. Vaguely we all believe in art; practically we are not able to bring it into the schools in any form which we regard as satisfactory for the training of students. To bring it forcibly into the course without heeding the objections raised will be unfortunate. To omit it altogether is to deprive the student of one important aspect of civilization. The challenge to deal with this situation intelligently is peremptory.

The much closer relation which has recently been established between art courses and industrial and vocational education has gone far toward defining the type of appreciation and of technical ability which art courses thus related aim to develop. This result has not only determined the aims and justified for both pupils and instructors

[1] From the Psychology of High School Subjects, pp. 345 and 364.

the place of these art courses which accompany industrial work, but it has also led to a scrutiny of the aims of courses not so related. In consequence, these courses, in revised form, have received new justification.

The revision of these so-called fine-arts courses has been mainly in the line of a better presentation of the unique historical material which the field of art possesses, of a development of appreciation of the fine arts as a source of æsthetic enjoyment, and of the discovery and conservation of special artistic talent as a social asset.

Under present conditions high-school art courses may be broadly classified as follows:

1. Courses in drawing and design which are organically related to industrial and constructive work, including household art.

2. General art courses, which correspond somewhat to traditional art-school courses and which appeal particularly to pupils with special art interests.

3. Courses consisting of illustrated lectures, readings, and class recitations which present a survey of art.

The character of these three types of courses is indicated more in detail as follows:

1. High-school courses in drawing and design are coming to be more and more closely correlated with industrial and constructive work. Formerly this correlation was expected to result from a presentation in the art classes of general principles of drawing and design and an application of these later to the specific problems of shopwork, printing, household art, etc.

The relation is rapidly becoming more organic. The problems of the drawing and design classes are now largely the actual current problems of the industrial and vocational classes. In many cases the pupils spend alternate periods in the shop and the art classroom, dealing with the same problems in both classes. Sometimes the industrial departments take over much of the art instruction dealing with their projects. Working drawing, appearance drawing, and design have become intimately related.

A common use of drawing closely related to home planning and interior decoration is illustrated by this extract from the course in art and industrial training of the Binghamton (N. Y.) schools:

TOPICS FOR DISCUSSION AND ILLUSTRATION.

1. Building site: Location, exposure, drainage, water supply, fertility of soil, etc. 2. Building materials: Wood, brick, cement, etc. 3. Freehand sketch of plan of home kitchen, for class discussion of conveniences and necessities in wall openings and furniture. 4. Study of mounted illustrations of plans of kitchen, pantry, and dining room, to scale. 5. Drawing to scale, with customary conventions, of kitchen, pantry, and dining room, showing plan and elevation. 6. Freehand or instrumental sketch showing the possible remodeling of

the home kitchen to secure greater convenience or better lighting and ventilation. 7. Study various styles of door and window openings, from the viewpoint of convenience, beauty, and expense. 8. Floor coverings: Material, color, and wood finish. 9. Wall finish: Paint, paper, and color scheme. 10. Necessary and convenient furniture for kitchen.

The present tendency to articulate the teaching of design with shopwork is described in this extract from the course of study of the West Hoboken (N. J.) schools:

We must deal with design, whether we will or not. Every hour calls for us to settle some problem in design, some arrangement of form, some disposition of lines and masses, some choice and disposition of colors. Man's whole life is a series of designs. The relation is wide, the laws are widespread.

Pure or abstract design is not a science. It has one decided lack, it fails to give the constructive view of design. There must first be a problem of construction, and second one of decoration wherein we consider balance, rhythm, harmony, etc.

The function of applied design is to add interest to construction. Therefore applied design is conditioned first by structure, second by use or purpose of the thing decorated, third by the convention required, fourth by the symbolic element that may be introduced, and fifth by the personality of the draftsman.

In this course of instruction we endeavor to plan the work so that the conditions set forth in the preceding paragraphs govern the subject matter.

The following recommendations regarding the general scope of high-school industrial drawing in connection with shopwork has received the approval of the faculty of the soldier training department of the University of Chicago, and also of that section of the committee of the high-school conference of the University of Illinois which has in charge the revision of high-school courses in drawing.

HIGH-SCHOOL INDUSTRIAL DRAWING AND DESIGN.

I. Freehand drawing of appearances to describe construction.
   1. Sketches directly from objects to show the appearance in perspective.
   2. Sketches for the purpose of experimenting with and perfecting ideas of construction and design.

   To do this two things are required:

   (*a*) Ability to judge proportions and angles rapidly and with fair accuracy.

   (*b*) Mastery of a few basic constructive forms so that these can be drawn in any specified position or modification or combination from imagination.

   Since a rectangular, a cylindrical, and a hemispherical solid are basic to most forms of construction, the drawing of these from imagination according to specifications should be thoroughly mastered.

   Tests indicate that theories of perspective, including principles of convergence, and foreshortening are not the best way of introducing the study of these forms. The most rapid and effective progress appeared to depend upon developing the pupil's ability to judge as to whether the drawings appear geometrically consistent or distorted (that is, as to whether they look right or not), rather than upon the knowl-

edge of formulated principles of perspective. It should be noted that this method differs radically from the old-time teaching of geometrical type forms by principles of perspective.

(c) Knowledge of an effective method of procedure in drawing constructed objects, i. e., what lines are the basis of the form and determine the length and direction of the others. For example, in a rectangular solid standing on a horizontal plane, to draw one vertical edge, preferably the nearest, determines the scale of the drawing. To draw one main edge extending to the right and one to the left, so as to show their apparent slants and lengths, determines the proportions and apparent position of the whole object. These are the key lines and by them are determined the direction and proportion of most of the other lines, even if the form is considerably complicated.

II. Drawing of plans and patterns to describe construction.

1. Freehand sketches of patterns and orthographic projections directly from objects to record constructive data.
2. Freehand sketches of patterns and orthographic projections for the purpose of experimenting with and perfecting ideas of construction and of design.

To do these requires two things:

(a) Ability to read orthographic projections rapidly and to translate facts of appearance and structure into the shop conventions of working drawing, with complete dimensioning according to shop practices. In other words, given an actual piece of construction, to make sketches in orthographic projection which shall include all data necessary for constructing the object.

For all practical purposes it is necessary to understand projection only in the third angle. An introductory discussion of all four angles is generally confusing.

(b) Ability to put one's own ideas of a piece of construction first into freehand working drawings with complete specifications, and then into accurate instrumental drawings.

Most copying of instrumental work should be eliminated. Only a very limited amount is valuable to give standards of technique.

Much detailed instrumental drawing should be avoided. Freehand working drawings and appearance sketching are the chief channels of constructive thinking. The finished instrumental drawings hold somewhat the same relation to these that the stenographer's copy does to the author's manuscript. Much instrumental drawing tends to substitute manual dexterity for constructive thinking.

(c) Ability to sketch the appearance of an object from the working drawing. This is particularly valuable in enabling pupils completely to visualize and understand structures when only the working drawing is given. It requires much of the same sort of constructive thinking that is employed when objects are actually constructed from working drawings.

In both appearance sketching and orthographic drawing, speed as well as accuracy should be cultivated.

III. Constructive and decorative design.

1. Choice of materials and processes best suited to meet the specifications.
2. Choice of styles of construction and decoration most appropriate to the piece of work in hand.

These require:

(*a*) Acquaintance with a reasonable range of materials and processes, and some knowledge of the history of industries more or less closely related to the immediate project. This calls for class discussions, visits to industrial plants or other places where constructive work of the sort under consideration is going on, and assigned reading planned to open up an industrial and historical outlook.

(*b*) Study of artistic styles of construction and decoration and the adaptation of these to the problem in hand. In any particular instance, as for example in furniture, this involves some study of the history and development of styles and a knowledge from books and museums, of the best that the past has produced, and also a practical acquaintance with modern products and current fashions as displayed in trade literature and advertisements and in stores.

Appreciation and discrimination are developed by selecting and by classifying examples according to various styles and also according to degrees of excellence in things of the same general styles. Notebook collections of sketches and of illustrations from advertisements, trade journals, etc., are practical helps. After the characteristics of a style have been given it is helpful to select, classify, and discuss examples accordingly.

(*c*) Supplementary practice in making good space arrangements and in drawing with facility a few typical curves; for example, arcs of circles, ellipses, and spirals of varying degrees of curvature.

Pupils should be trained to self-reliance in analyzing a problem so as to outline effective methods of going to work, and to decide along what lines investigation or reference material will be helpful.

2. General art courses. These courses are usually planned to train ability in representation along two lines. One of these is descriptive drawing, to enable pupils to meet readily the ordinary demands for illustration in connection with any school or home interest not reached by drawing in connection with the industrial arts. Sketches and drawings in connection with history, geography, literature, and the natural sciences are examples of this sort of drawing.

The use of drawing as a means of illustration of other high-school subjects has recently received careful attention. It has been found that pupils can be taught methods of procedure in illustrating a theme, which will make their drawing a genuine piece of study in selecting the particular aspects essential to the points to be described, in choosing the medium, hard or soft pencil, pen and ink, water color, or colored crayon, or whatever other medium is best fitted to give the characteristic effect, in consulting sources of reference mate-

rial, and in gradually elaborating sketches which are at first usually crude and inaccurate, but which are gradually perfected through many experiments and the accumulation of skill and of data.

By working up pictorial themes in this way, pupils gain by experience some appreciation of the manner in which pictures develop. They learn that a work of art, however spontaneous in appearance, is usually the culmination of a long series of sketches, observations, and experiments. This experience contributes to the understanding of art, something comparable to what the production of themes in English is expected to add to one's appreciation of literary methods.

It has been shown that certain methods of drawing may promote keen observation and analysis, while other methods may actually hinder these mental processes. In a study of drawing in relation to its use in science laboratories, Prof. F. C. Ayer, of the University of the State of Washington, says:[1]

> Representative drawing does not insure a consideration of the scientific aspects, or an analytical study of an object. The preconceived purpose of reproducing a visual copy narrows the scope of observation, and the attention, at best, is directed to items of form and color. There is nothing to call up associations which have to do with scientific ends. The attention is, in fact, kept away from the associations that have to do with science as such. Even in the province of form, sustained attention is not necessary. The pupil's drawing is always subject to direct comparison with the object at hand, so that extended study and reflection over its proportions are not necessary. It is a waste of time for the interests of scientific thinking to require pupils to spend extended periods of time at representative drawing. In fact, it is worse than a waste of time, for it encourages bad habits of analytical study, which are opposed to interests of scientific thinking and constructive research. It is no wonder that so few of our picture-laden notebooks give evidence of scientific grasp or initiative. The excessive use of representative drawing is a serious pedagogical formalism which produces copyists instead of scientists and which creates distaste instead of enthusiasm for science.

After analyzing descriptive drawing in a similar fashion, Prof. Ayer says of analytical drawing:

> The preconceived purpose of analytical drawing supplies the direction of attention which is lacking in spontaneous description. The attention is directed to the particular characteristics of the object which are of immediate scientific concern. The successful type, schematic, or diagrammatic drawing can not be made without analytical study. The student who attempts to make a diagrammatic drawing * * * has before him a definite problem in analysis which necessitates sustained mental effort to the end of the process of representation.

A second purpose of these general art courses is to meet the need of pupils with special art interests. This group of pupils includes those to whom the practice of art is a continual source of pleasure of a high sort. They may never make art a profession, but it will

[1] The Psychology of Drawing, F. C. Ayer, pp. 163–165.

always be to them a means of discovering new interests and enjoyments. It includes also those talented few who will make art in some form their life work. For these pupils the courses are vocational in character and help to discover and guide their ability into the lines for which they are best adapted. These are the pupils who become industrial designers, painters, sculptors, illustrators, architects, etc.

3. The courses in the history and appreciation of art. Courses of this sort are becoming fairly common in high schools. They give acquaintance with the salient characteristics of styles of architecture, painting, sculpture, and industrial design, of the chief historic periods of art. They also bring to the attention of pupils the more important masterpieces of these periods. In such general surveys it is of course impossible to make an exhaustive study of any one topic. Nevertheless, the general features of the arts of different times which express most intimately the life and artistic ideals of the peoples can be shown. The pupils become acquainted with many of the greatest masterpieces in a way which gives new meanings to history, literature, and current events. Modern art gains added significance when viewed in the light of a knowledge of past art, and modern life is interpreted from another point of view when the arts of the present are recognized as being its inevitable expression.

The effect of war conditions upon high-school art has been evident, especially in its influence upon the subjects chosen for design. For instance, war posters have been produced all over the country. Another and more general effect has been the quality of directness and concentration that has come into work connected with the war. There is in it all an element of emergency which tends to eliminate steps of doubtful value and to produce desired effects with the greatest economy of time and means. For example, in the drawing connected with constructive work in classes of enlisted men, it has been found possible to give in a much shorter time than has previously been considered necessary, a working knowledge of the subject. A considerable part of the teaching in these classes is being done by high-school instructors, and the facts brought to light will inevitably affect their regular teaching. The Instruction Manuals issued by the War Department committee on education and special training contain many stimulating suggestions which will doubtless influence all the teaching of the instructors who use them. The following sentences from Instruction Manual No. 1 indicate the spirit of directness which dominates them:

> Methods of instruction must be used which in the time available will best train men to do these jobs. * * *
>
> In order to provide for the development of originality, initiative, and real thinking power and also to prevent a rule-of-thumb method, the teaching should

be almost entirely through jobs, questions, problems, and guided discussion about the work * * *

The accomplishment of a job is both the end to be attained and the means for instruction.

Another incidental effect of the war upon high-school instruction has been the widespread discussion of art values that has been occasioned by the destruction of so much of fine art that can not be replaced.

ART INSTRUCTION IN UNIVERSITIES.

Courses in art instruction in colleges and universities may be broadly classified as follows:

(1) Courses in history of art.

(2) Courses involving studio work related as laboratory work to academic courses, and dependent for credit upon association with these courses.

(3) Studio work credited independently.

The trend of recent development in these groups of courses has been as follows:

1. Courses in history of art. Historical and archæological researches have steadily increased the range and value of the material for these courses, especially in the fields of Egyptian, Cretan, Chinese, and primitive American art. Very large additions to the number of original examples of art available for study in this country have been made during the past 10 years. There is pretty general recognition now of the fact that art supplements literary documents in a special way, because it not only furnishes material in additional quantity, but its records are peculiarly different in kind. The arts of form with their vocabulary of visible shapes and colors can embody and preserve certain significant human interests which literature, from the nature of the indirect terms which it uses, can not express in quite the same way. These records of art are intimate and illuminating in a unique sense, because in many cases the student has before him the actual forms and surfaces which the artists and craftsmen produced. For this reason original art material is peculiarly confidential in transmitting, in addition to the actual subject matter, an element akin to what inflections and gesture add to words.

In addition to a wider range of historical material, the courses offered show an increase in the time devoted to modern art. The historical value of the records which art has left has always been recognized. The fact that the art of to-day is an equally illuminating factor in interpreting certain important aspects of the present has not been as generally evident. Moreover, the æsthetic standards of historic art have been comparatively well established, so that in-

structors can feel fairly safe in expressing their appreciation without hesitation. On the other hand, the higher type of critical judgment and æsthetic appreciation required to discern the tendencies toward significant expression and the germs of future perfection in the art of to-day have frequently made instructors diffident about dealing with this complex subject. An increased willingness to attempt it is, however, observable.

The following comments on the study of modern art are extracts from a paper by Prof. George B. Zug, of Dartmouth College:

A professor of Greek once said to me that he thought most people are really interested only in contemporary literature. I am inclined to think that with most people an interest in art begins with an interest in contemporary art. Accordingly, in some of my smaller exhibitions I have interested the boys in the art of Daumier, by means of drawings of Boardman Robinson. From Daumier they were easily led to Delacroix, and the latter prepared for a study of Michael Angelo. In the same way, drawings of the cartoonist Cesare have been the means of opening up the subject of pictorial satire, and this has led to Daumier, to Goya, and to Hogarth.

Students are interested in the mechanics of art. They enjoy seeing the tools and studying the processes used in the making of etchings, engravings, lithographs, and other prints. Colleges could attract more students to the subject of art by means of exhibitions of the materials and tools and stages in production of various kinds of prints, such as those in the New York Public Library on "How Etchings Are Made," "How Lithographs Are Made," "How Mezzotints Are Made," "The Making of a Wood Engraving," or "The Making of a Japanese Wood Block Print." Few professors would want all of these exhibitions, and perhaps none of us could secure material and prints for such complete displays as Mr. Weitenkampf has arranged.

But modest exhibitions on one or two of these lines would arouse a new interest among the students and would cost a comparatively small sum. At least one such exhibition should be part of a permanent collection of every college art department.

Regarding an exhibition of paintings, etchings, and illustrations, he says:

The latter were chosen not in order to represent any special illustrators, but to present selected examples of high quality of work in black and white, of oil in full color, water color, charcoal, pen and ink, pencil, and etching. Considerable interest was aroused in the class by assigning a paper which should compare and contrast the use of illustration in Harper's, Scribner's, and the Century, and the use of illustration in the cheaper magazines, such as the Cosmopolitan and the Metropolitan. The best of the essays on this subject, which showed decided originality, was entitled "The Big Three and the Proletariat." The advantage of this theme was that it lent a vital interest to the subject in that it had to do with the interpretation of contemporary life and especially that the work was based on the observation of originals and of the relation of their reproductions to the text. It was a subject, therefore, which could not be cribbed from books or articles.

Some of the best essays by undergraduates were published in the Boston Transcript and the Springfield Republican. The chief aim of a course in fine arts is not to furnish copy for metropolitan newspapers. It is to enhance the

appreciation of art. The point is not only that these undergraduate essays were good enough to be accepted by newspaper editors, but also that they were the result of personal appreciation, of first-hand observation.

In regard to the uses to which college exhibitions are turned, I wish to speak first of what the instructor can give the students by means of lectures, personal explanations, and gallery tours; and second, what the student can himself gain from such exhibitions.

The teacher has an opportunity to show such qualities and characteristics as do not appear adequately in any reproduction. For painting he can explain and actually show such things as tone, brushwork, harmony of color, and other qualities for different periods, and different groups within the same period. For instance, the handling of color and tone of impressionist pictures, of tonalist pictures, and post-impressionist pictures. For sculpture, of course, there are qualities of color, modeling, and patina which can be appreciated only in originals.

The direct appeal of originals is one explanation of the success of well-selected art shows among undergraduates. Moreover, exhibitions make the student body feel as they never have the importance of the study of fine arts. The feeling of proprietorship of personal interest is encouraged by having the undergraduates perform actual work, which brings its own reward in experience and appreciation. Students get valuable experience in the kind of manual labor done in museums; they unpack, hang, and repack paintings and sculpture; they make pedestals for sculpture, design labels and posters; they gain some knowledge of the problems of framing, hanging, and installation. A few also learn something of the business side of exhibitions, where and how to borrow pictures, selection of works of art for exhibition purposes, and matters of insurance.

Undergraduate correspondents have reported the exhibitions for city papers and for college publications. They have also shown competitive interest in writing essays for small money prizes. But perhaps one of the most happy results of the exhibitions has been their use by other departments. The professors of psychology and of English composition have required themes based on direct observation of the originals. Accordingly, over 500 students in three departments had required exercises based on the works of art in one exhibition.

2. Courses involving actual practice in drawing, painting, modeling, and designing and directly related, as laboratory work to academic courses. The character of these courses is naturally determined by the particular departments to which they minister. Prominent among the departments under whose auspices courses of this type are organized are those of history of art, education, architecture, and engineering.

The following quotations from a paper by Miss Edith R. Abbott, of the Metropolitan Art Museum of New York, indicate the character of many of these courses, organized in connection with courses in history of art:

In discussing this question, I have assumed that the term nontechnical laboratory work may properly be applied to laboratory drawing in which the object has been to develop the power of observation, not to achieve technical proficiency. Prof. Moore, of Mount Holyoke, says, "The term 'laboratory work,' borrowed from the sciences, is not a misnomer here. In science the laboratory forms the basis of theory; facts are observed, and by inductive and deductive

reasoning general principles are from them affirmed. In a study of historical art, too, laboratory work is used as a method of close analysis. Such work should be not merely an accompaniment, but an organic part of the study of the history of art. Our purpose in its use is to enable the student to devote his attention for a time to one or another feature of a picture; * * * the student tries, by drawing or modeling, to copy or suggest these points, and in so trying he is obliged to analyze them with a peculiar concentration that he would hardly attain by any other method." * * *

The study of this form of expression, I believe, should not differ essentially from that of music or literature. The work itself must speak directly to the observer without any intermediary. The art student should be encouraged to make his own investigations and to draw his independent conclusions from analysis of the masterpiece itself. He may examine the structure of the picture in the same way that he would examine the structure of a symphony; he may look for the idioms of the painter or draftsman and learn to recognize them as he would recognize the terms of speech which characterize the style of a great writer.

In any such analysis, I believe the use of drawing to be invaluable. With the student and beginner, drawing has the important advantage of holding the attention focused upon the object for an appreciable time.

Let us consider the advantage of laboratory drawing in the study of composition. Compositions might be called the study of the interrelation of the parts. Baldwin Brown says, "The temptation to consider the parts in themselves rather than the effect of the parts in their relation to the whole is to most people irresistible." The untrained eye finds the plan of composition difficult to decipher, and yet the artist has based his arrangement upon a carefully constructed scheme. Mr. Cox thought it worth while in his analysis of Veronese to draw a diagram in order to demonstrate the severe laws of balance upon which Veronese relied for his effects. It seems beyond question that the picture has a greater interest when this fundamental structure is understood, since it gives the clue to the whole complex scheme.

A similar analysis may be made a class exercise, the students being required to sketch from lantern slides the structure lines of simple compositions. A time limit of 5 or 10 minutes may be set, or the student may be left in uncertainty when the light will be extinguished. By this means they learn to think logically and to build up the "anatomy" of the picture in an organic fashion. Whatever may be the results on paper, the exercise necessitates concentration upon structure and upon logical development. College teachers of English have told me that the clear analysis shown in these drawings was exactly what they were trying to get in their work in English composition. Laboratory drawing holds the attention concentrated upon form rather than upon any extraneous interest or associated idea. It facilitates the understanding of compositionai problems with all the delicate adjustment of forms to space which they involve. A more intimate acquaintance is gained with the expressive language of art, and the foundation is laid for the appreciation of "quality," so that in the final analysis one should be able not only to distinguish the line of this or that painter, but also *la ligne vivante* which characterizes great art. Laboratory work is essentially a means to an end. For the student with artistic ability it can never become a substitute for real studio practice. But once initiated into this new world in which the senses play so large a part, the student experiences keen enjoyment.

3. Studio courses not planned primarily as laboratory work for academic courses.

There is an evident tendency to credit work in art which is more or less independent of an organic relation to academic courses, but which is nevertheless considered as an appropriate part of a major in art. In some cases these courses are carried on in an accredited art school. The affiliation between Brown University and the Rhode Island School of Design is an instance of this type of arrangement. Many colleges and universities have their own department of fine art. The steadily increasing amount of recognition accorded to well-organized studio courses in art as appropriate for academic credit is partly the result of a realization that art expression is more than a matter of manual dexterity in making a record of what one sees. It involves in addition, the translation of one's impressions into terms of expression which have been slowly evolved by the race, and which demand careful analysis and selection, and the knowledge of a body of principles and recorded experience. In the same sense that the test of excellence of themes in English is not their exactness as dictographic records of actual conversations nor as literal statistics of observations, so the test of college art work is not its correctness as a record of forms and colors, but its reconstruction of the raw material of visual sensation into artistic expression.

The recent steady increase in the number and size of departments of fine art in universities is destined to exercise an important influence upon American art in two directions; namely, by giving to the future citizens who will be the patrons of art and the promoters of the standards of civic beauty an early acquaintance with artistic interests and ideals of excellence, and also by offering to those who later will be professional artists an opportunity to continue through college the contact with art which in many cases was begun in high school.

Notwithstanding the high degree of skill in handling materials which drawing, painting, modeling, and designing involve, they are in their higher forms allied to the arts of expression more closely than to the arts of construction. In universities where art may be selected as a major subject, the student who plans to use art as his form of expression has the same opportunity as the student who intends to enter the profession of literature, to begin his work under conditions which will give him a broad intellectual background and stimulating contact with other vigorous interests.

The artistically gifted student in a college or university which has no art department generally finds, early in his course, that he must choose, in a manner that the student who plans to make science or literature his profession is not called upon to do, between a college course and a highly specialized art course. Too early technical facility, unaccompanied by constantly enlarging intellectual outlook

is as bad for the art student as too late a knowledge of the use of his means of expression.

The organization of college art courses is steadily improving. The work of the College Art Association of America is contributing effectively to this end.

ART MUSEUMS AND ART SCHOOLS.

Art museums have always been a most important factor in art education in America, and their influence is extending rapidly. This development is due in part to the increase in number of museums and in the size and quality of their collections, and in part to improved means of making their collections available. Most modern museums have established close relations with the communities in which they exist, and have put forth every effort to make their collections of use as a stimulus and guide to the art student and industrial worker and as a means of artistic pleasure and inspiration to the general public.

The older museums have existed long enough to be able to weed out much ordinary, but space-filling and mind-confusing, material. The newer museums learned by the experience of older institutions to protect themselves tactfully from mediocre but generously offered material, so that a satisfyingly large proportion of the works exhibited in the permanent collections of the museums of to-day have a genuine artistic significance.

Where means are limited, it is generally considered more important, in extending the list of permanent acquisitions, to have a small collection of a high degree of excellence than one which is large but only fairly good. It has become customary to regard a sum of money as more wisely expended in the purchase of one or two excellent examples of a given style or period of art than in procuring many ordinary illustrations of a wider range of styles. Photographs, and in some cases casts, are generally regarded as better substitutes for unobtainable fine things than original productions of indifferent merit. In consequence of this policy, the number of commonplace productions on permanent exhibition in American museums is relatively small.

Besides the regular displays of collections owned by the institution, nearly every museum has a succession of exhibitions of works of special interest, including current productions of pictorial and industrial art. Societies now exist for the promotion of American art, and their patronage in the form of prizes and purchases is an added influence in bringing to these exhibitions much of the best in modern American painting, sculpture, and design. While the collections accumulated from current exhibitions by these associations doubtless contain many things that will not stand the test of time, nevertheless

after a hundred years the really excellent material they contain promises more than to justify the policy, without taking into account the encouragement that has been given to American art during that time.

Besides making art productions of the past and present available, museums are organizing further educational activities with increasing effectiveness. In the galleries, docents and guides are available; literature, lantern slides, photographs, and color prints of good quality are provided; and lecture courses and classes are organized. Many museums have their collections of lantern slides selected and arranged so as to be of use in the community, especially in the schools. Carefully prepared lectures in manuscript form, together with appropriate slides, are frequently available for the use of schools. A few museums have collections of slides which, for a small rental fee to cover packing, will be sent to various parts of the country. The Metropolitan Museum of New York and the Art Institute of Chicago are notable among the institutions which offer this wide opportunity. The bulletins published periodically by many museums have become important art documents. By them the acquisitions and opportunities of these institutions are made known to the public.

The educational activities of museums and special art schools differ considerably, because each is experimenting with methods of meeting the needs of its locality. Reference can be made here to only a few, but the following are fairly typical of the various lines of effort.

Some of the lectures and classes announced in the bulletin of the Metropolitan Museum of Art in New York City, September, 1917, are the following:

For the public, Sunday afternoon lectures, illustrated and followed by visits to the galleries through the winter season.

Story hours for children and adults, illustrated and followed by visits to the galleries.

Artistic problems in Greek sculpture; five illustrated lectures.

For students of sculpture and painting in the art schools of New York. Four informal talks by painters and sculptors, with illustrations.

For teachers in the public schools of New York City. Gallery talks by the museum instructors.

For elementary and high school pupils. Four lectures in cooperation with the American Museum of Natural History. Textile industries of the United States. The garment makers of primitive times. Historic fabrics and costumes.

For sales people, buyers, and designers, three seminars.

For the deaf. Four illustrated lectures for those who can read the lips.

For the blind. Three talks for children, illustrated with objects from the collection which may be handled.

The Art Museum of Worcester, Mass., has set an admirable example in the activities of its children's department, the informal work in drawing, the Saturday story hour, and the gallery visiting.

> Inevitably, the most important results of this work can not be measured in figures; they are observed by those who know the children as individuals, in the increased capacity for spontaneous enjoyment of beauty wherever seen, and the deeper interest in the museum, leading even to a certain sense of part ownership in the collections which, through intimate association, have come to mean much to these "younger citizens."

A large number of museums carry on systematic work in direct connection with the public schools and offer to teachers and pupils free admission to the galleries. The plans followed by the Museum of Fine Arts in Boston, the John Herron Art Institute in Indianapolis, the Carnegie Institute at Pittsburgh, and the Cincinnati Museum Association are typical of these activities.

The Museum of Fine Arts in Boston, among numerous other opportunities which it furnishes, has established in another section of the city a Children's Art Center. Here children may see loan exhibitions and be helped in the study of them and guided in their own efforts to draw.

Some 18,000 persons annually take advantage of the opportunity for free admission offered to school children and teachers by the John Herron Art Institute, of Indianapolis. It maintains a series of illustrated talks for grade-school children on popular subjects closely allied to art study. For high-school students a two-year lecture course is given on the history of art (one term each covering painting, architecture, sculpture, and the decorative arts), a full high-school credit being awarded to each student attending through the two years. A course in "museum study," planned to develop a fuller knowledge of museum material and a better understanding of how to make use of it, is a required part of the Indianapolis Normal School curriculum. In addition to these regular courses, all given at the museum, numerous classes come for special study or for a general museum visit, and frequent lectures are given in the various school buildings on the practical application of art in the home, the city, the community, and along similar directly helpful lines. In the art school which it maintains for professional training in drawing, painting, and the decorative arts, classes are conducted for teachers at special low prices and free classes for elementary and high-school pupils. In addition it offers scholarships for advanced work in art to pupils who show special ability. Recently, the free scholarship has been extended to cover the whole State of Indiana and a scholarship offered for each of the 92 counties in the State.

The Cincinnati Museum announced its plan in its report for 1909 as follows:

The question of education on a large scale—that is, of bringing the general public into intelligent and agreeable acquaintance with objects of art—is a matter which is occupying the attention of every museum at the present time. It is being variously dealt with. There is, of course, no difficulty in answering the needs of an individual or of a small group who come with a definite question or a common want. It is a pleasant and profitable task, for example, to talk over the Greek sculptures with a group of children who know their mythology. But it is doubtful whether the needs of large visiting classes of school children can ever be adequately met by instruction inside a museum. Certainly to attempt locally the systematic instruction of great numbers would be an impossible tax on a small and busy staff * * *. There are times when the request for guidance must be reluctantly refused. Volunteer service of the right sort would be a great boon and would hardly run the risk of becoming stereotyped, a real danger to any employing the function too frequently. By far the best results, however, are to be gained by the school-teacher who possesses sufficient knowledge to use the collections. She can reinforce her own work by drawing on an inexhaustible fund for illustration, and by reason of her knowledge of the child's degree of preparation she need waste nothing. If she possess, in addition, a love of beauty, either native or acquired, the conditions for success could hardly be improved upon.

The museum, then, is putting its main strength along this line into its work for teachers.

Another not uncommon affiliation is illustrated by the opportunity offered at Cincinnati, where high-school students may elect an art course which is arranged to allow five afternoons of work each week in the museum academy. Each afternoon's program includes three hours of drawing and painting. Instruction in the history of art is given to these students at the museum. The museum circulates through the schools certain sets of lantern slides with a synopsis. The subjects for 1918 are: "A Review of the Museum," "The History of Painting with Special Reference to the Characteristics of the Great Periods," "Metal Work," "Design as Studied and Practiced To-day." A lecturer from the museum is sent to the schools occasionally.

The way in which the Carnegie Institute comes into touch with the school children is described as follows:

The problem presented to us by visits to our galleries of groups of children from the public schools, and the way in which we have undertaken to solve it, may be briefly stated.

Through the interested cooperation of the superintendent of schools in Pittsburgh, and the director of art instruction, and the exceptional liberality of the board of education, the students of the entire eighth grade of the public schools, numbering 5,000, and ranging in age from about 14 to 16 years, come three times during the school year, with their teachers, as part of their regular work, to visit the halls and galleries of the department of fine arts at Carnegie Institute. Each visit is limited in time to an hour and a half, and the three subjects, painting, architecture, and sculpture, are studied, but each period is devoted to the study of one subject and of only a few works of art. These works are used for the purpose of illustrating some of the fundamental qualities defined.

As a result of many years of observation the problem presents itself to me in this way. We have, on the one side, groups of interested and intelligent children, eager to see and hear and understand. They come to us from 5,000 homes scattered throughout the entire city, and the majority of them have had no opportunity to learn anything about art, or even to see works of art. They have had nothing beyond the elemental art training offered by the public schools, and their sole means of observation has been practically limited to illustrations published in books and magazines telling stories or illustrating incidents. This side of art is, of course, so obvious that it may be readily understood by a child.

On the other side of the problem, we have the entire realm of art with which to deal, in three sessions of an hour and a half each; the history of art, of painting, of architecture and sculpture; the wide field of biography, of painters, of architects and sculptors; the technical side of art, the peculiar or special methods adopted, especially by painters, in the production of their work; and the various elements or qualities which enter into a work of art. The problem might be approached from any of these angles.

It will be seen at once how futile it would be to attempt to give the young people any idea of the history of the art of painting in the space of an hour and a half. It might be possible to deal briefly with the life of a single artist within the time, but the impossibility of dealing adequately with the wide field of biography within the hour and a half is apparent. And while the technique of art is an interesting field of inquiry and study, the peculiar manner of doing a thing is unimportant. Supreme examples of art have been produced by various technical methods. Technical methods are of little more importance than the handwriting of the author. Moreover, these students do not come seeking technical knowledge. They simply want to know why this or that work is good, to the end that they may better understand and enjoy art. The folly of attempting to teach these young people the history, biography, or technique of any art in an hour and a half is evident.

Therefore, it will be readily seen that if we are to give these students anything worth bringing them to the institute for, we must select for them with discriminating judgment and concentrate their attention upon some important quality or qualities of the subject. Our chief purpose, then, is to give the student a *point of view* from which to examine and study, not one work of art, but all works of art.

The scholarship plan of the Cleveland School of Art illustrates some of the types of scholarships which art schools offer to talented public-school pupils. This school offers working scholarships and a few money scholarships. Last year the "Mutual service fund" was inaugurated. This is made up at present of eight purses of $350 each. A talented pupil can have the benefit of one of these purses on condition that as soon as his earnings begin, the money be returned without interest, in installments to be paid either by the individual or by his employer—a certain percentage of his earnings monthly—until the whole is returned for another to use. The purses are given by individuals or organizations who come into personal touch with the beneficiary. The pupils whose abilities are recognized by the award of these scholarships are usually discovered in the high schools. Application is made through some special teacher of drawing who knows the facts about the pupil and his work.

The Cleveland Museum, in addition to its regular gallery displays, has exhibitions of selected works of art in a place of honor and under special illumination, each for two weeks only. Illustrated leaflets are issued interpreting these selected works and giving references to helpful literature about them and the artists who produced them.

In connection with the difficult matter of appropriate gallery talks a much better understanding is evident regarding the ways in which genuinely artistic appreciation is promoted. Some fundamental considerations on this complex problem are set forth with admirable clearness in the bulletin of the Art Institute of Chicago for February, 1918, from which the following paragraphs are extracts:

> There is no form of art lecture capable of greater value to the interested public than that delivered in the presence of the works under discussion. Here qualities are seen and pointed out rather than described, and here the emphasis can be laid on a statement of the principle governing the manipulation of those qualities—the essential processes of art.
>
> And yet there is no situation in which the lecturer can more easily be tempted from the straight and narrow path of scientific truth than in the gallery talk where the acquiescent pictures seem so ready to corroborate any word he may utter. The exercise of individual taste and the play of individual fancy have a right to play their part in the appreciation of works of art, and something very like these often stimulates the amateur critic into strange vehemence of statement—either of denunciation or of praise—in channels of purely personal thought whose value for his audience is certainly nothing and may be less.
>
> Now this leads to the single deadly sin of the picture talker—the creation of prejudice. * * * It is precisely the function of the gallery talker to help us to find the artist's angle of vision. The greatest gift he can offer us is to make us sympathetic with the conceptions which are new to us. His best means of accomplishing this is to help us to rid ourselves of the films of prejudice through which we all are obliged to some extent to peer. * * *
>
> For we can not receive our æsthetic experience second hand. With the open-minded attitude which is ready to accept a "message" from any work, however old or however new, there must be combined an insistence upon receiving that message at first hand and for ourselves. The gallery lecturer who in any way attempts to come between us and the superlative delight of growing into the love of a work of art through our growing acquaintance with it, shows us at the start his (or her) failure to grasp the first essential of leadership in art appreciation.

Practically all modern museums carry on one or more of the kinds of educational activity here mentioned. The foregoing examples have been cited only to illustrate types of work, all the specific instances of which are fortunately much too numerous to allow of individual mention.

Art education related to industries has been prominent in America for many years. It is receiving a fresh impetus at present from the prospect that, after the war, the United States will have to depend upon its own resources more than in the past, not only for designers but also for styles of design. A kind of originality must be developed

that can produce things which are not only new but fine in quality. With this necessity in mind, older schools have been improving their facilities, while new schools intimately related to local industries have arisen. The Grand Rapids School of Art and Industry, in Michigan, and the Federal School of Commercial Designing, in Minneapolis, are types of these newer schools. Most of the schools of industrial art offer special opportunities for school pupils whose vocational interests in this field have become evident. The scheme of affiliation worked out by the School of Industrial Art in Trenton, N. J., is typical of this sort of arrangement. Here pupils from the city schools may take courses for which the fees are merely nominal. Technical art courses are provided for pupils who have completed the junior high school, and an art teachers' course is offered for students in the normal school.

American students of textile design have only recently discovered the value to their work of the extensive collections of primitive art which are gathered in the anthropological museums of this country. These students are recognizing the fact that primitive art is often very good art and that it offers a vast source of suggestion and inspiration for designs that are original, in the sense that they are unlike those to which we have become accustomed. In an article entitled "Museum Documents and Modern Costume," in the American Museum Journal for April, 1918, Mr. M. D. C. Crawford writes:

> Above and beyond the artistic merit of these costumes, however, they illustrate in a definite manner a very important feature of the educational possibilities and public usefulness of the American Museum. Every single garment in the collection was founded on a specimen in the collection of this museum. In certain instances, the inspiration is perhaps difficult to trace, but in others it is quite obvious. These garments represent the first fruits of what I may term "creative research" by the American costume industry. The documents in the museum were studied with the view of applying ideas, either in decoration or in line, to modern costumes. Instead of the usual method of importing modern foreign costumes (themselves based, generally, on foreign museum collections), our designers, familiar with the practical needs of to-day, have gone direct to original documents for their inspiration. The work, therefore, marks one of the most important movements in the development of a truly American type of industrial art. * * *
>
> It is not difficult to understand how important a part our great museums and libraries must play in the proper industrial expression of art. They are for the artist inexhaustible mines of suggestion. The art of each people and age is an evolution from some former type. The artist, especially the decorative artist, is concerned not alone with purely original creation, but with the inspired selection of certain ideas and motives of ancient origin that may have a fresh significance for his own time and people.

The national need for industrial design is strongly influencing the art departments in high schools and art schools. In the past, many students have entered art work because of their strong liking for that work, but in only a few institutions has the training been directed

and vitalized by any definite knowledge of the actual demands for the product. Consequently, many art students with marked abilities in design but not in pictorial art have received only formal training in design or have given their time to painting pictures, thinking that overcrowded field to be the only place for art expression. Many with valuable talent have turned to work other than art because they had no knowledge of the opportunities offered. Prominent among the agencies which are remedying this condition is the Art Alliance of America. This association was organized in New York City in 1914, with headquarters at 10 East Forty-seventh Street. One purpose of this association is to promote working relations between art producers and the industries. It brings artists and art students into personal touch with industries which need art products. The New York division of this association was organized in New York City in 1914. Galleries are maintained in the heart of New York's shopping district, where exhibitions, organized in close cooperation with artists and with the trades, are held every month. Positions are secured, work sold, and advice given by artists and educators. Hours are assigned daily for personal interviews and examination of work. The Central States division was organized in the fall of 1918 in Chicago, and maintains an office in the Art Institute. At each monthly luncheon the artistic possibilities of some industry are discussed. The movement has the friendly cooperation of the Illinois Manufacturers' Association, and plans for a comprehensive exposition in the fall of 1919 which will illustrate the necessity of art in industry are under way. Additional divisions are being organized in other centers in the country, so that the alliance is likely to exert a strong and direct influence upon the methods of teaching of design, and upon the vocational guidance of students of marked artistic abilities.

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AGRICULTURAL EDUCATION 1916–1918

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By
C. H. LANE
FEDERAL AGENT FOR AGRICULTURAL EDUCATION, FEDERAL BOARD FOR VOCATIONAL EDUCATION

[Advance sheets from the Biennial Survey of Education in the United States, 1916–1918]

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AGRICULTURAL EDUCATION, 1916–1918

By C. H. Lane,

Federal Agent for Agricultural Education, Federal Board for Vocational Education.

CONTENTS.—Agriculture in secondary schools—The elementary schools—Agricultural education at meetings—Agricultural education in other countries—Educational work of the Department of Agriculture—The agricultural colleges—Appropriations—Extension and short courses—The graduate school of agriculture.

AGRICULTURE IN SECONDARY SCHOOLS.

In the passage of the Smith-Hughes Act another important step has been taken by the Federal Government in its relations to education. Under the new measure, Federal appropriations ultimately aggregating over $7,000,000 per annum have been made available for cooperation with the States in the promotion of vocational education in agriculture, the trades and industries, and home economics, including the preparation of teachers. The principle of Federal aid through the States to education in institutions of subcollegiate grade has been established, and an additional set of administrative machinery has been devised to operate the new system of education which is provided.

As a pioneer measure, the new legislation inevitably recalls the original Morrill Act. Primarily both laws were apparently intended to provide training in agriculture and the industries, the one in collegiate, the other in subcollegiate institutions. They were thus both designed to develop a type of education of the utmost importance to our country, but previously never directly supported by the Federal Government and to only a limited degree by the States and local communities. Likewise both acts involved the introduction of a new system of education into the existing system.

It is somewhat remarkable that these two measures, separated in time by a period of over half a century, should both have been enacted in a period of great national crisis. The Morrill Act of 1862 was of course signed in the midst of the Civil War, while the vocational education act of 1917 antedated by only a few weeks the formal

entrance of the United States into the present conflict. The coincidence is the more striking since both measures were designed to foster agriculture and the industries, foremost among the arts of peace, and since both had been pending in Congress for years before the outbreak of hostilities.

The measure ultimately adopted was introduced into the Sixty-fourth Congress by Senator Hoke Smith on December 7, 1915, and was passed by the Senate with amendments July 31, 1916. Its early enactment was strongly urged by President Wilson in addressing Congress at its reopening in the following December, as—

> of vital importance to the whole conutry because it concerns a matter too long neglected, upon which the thorough industrial preparation of the country for the critical years of economic development immediately ahead of us in very large measure depends * * *. It contains plans which affect all interests and all parts of the country, and I am sure that there is no legislation now pending before the Congress whose passage the country awaits with more thoughtful approval or greater impatience to see a great and admirable thing set in the way of being done.

As an expression of educational policy, the new act embodies some important departures from previous legislation. It makes provision for the training within the schools of a large group of our population hitherto unreached directly by the Federal Government. On the one hand, by offering instruction along vocational lines and of subcollegiate grade, it supplements the Morrill Act, the expressed purpose of which is to maintain colleges "to teach such branches of learning as are related to agriculture and the mechanic arts * * * in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." On the other hand, since it contemplates a system of training in the schools, it also supplements the agricultural extension act of 1914, in which the service provided is "the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in State colleges in the several communities." Since it imposes definite requirements as to the training of teachers, it also represents a material extension of authority over the purely permissive provisions of the Nelson amendment of 1907.

The most radical innovation in the act deals with the method of its administration. Previous legislation along these lines has regarded the college of agriculture and mechanic arts as the State unit, whether for college instruction under the Morrill Act and acts supplementary thereto, the preparation of teachers under the Nelson amendment, the conducting of research in agriculture under the Hatch and Adams Acts, or the carrying on in cooperation with the United States Department of Agriculture of extension work in agriculture and home economics under the extension act. The administration of

those measures dealing with college instruction has centered in the Department of the Interior, and of those dealing with research and extension work in agriculture in the Department of Agriculture. The vocational education act in both respects establishes a new administrative system.

As its head there is provided a Federal Board for Vocational Education. This board consists of seven members, including the Secretaries of Agriculture Commerce, and Labor, and the United States Commissioner of Education, ex officio, with three members appointed by the President and confirmed by the Senate, ultimately for terms of three years each. One of the appointed members is a representative of the manufacturing and commercial interests, one of the agricultural interests, and the third of those of labor. The board selects its own chairman each year.

The Federal board is charged with the administration of the act, the details as to the care of funds, the certifying of the States, etc., in general plan resembling the legislation for the agricultural colleges and experiment stations. In addition it is empowered to make, or have made, investigations and reports to aid the States in the establishment of vocational schools and classes, and in giving instruction in agriculture, the trades and industries, commerce and commercial pursuits, and home economics. These studies include agriculture and agricultural processes and the requirement upon agricultural workers, similar studies as regards the trades, industries, and commerce, home management, domestic science, and the study of related foods, and the principles and problems of administration of vocational schools and of courses of study and instruction in vocational subjects. In the discretion of the board, the studies concerning agriculture may be made in cooperation with or through the Department of Agriculture. Similar cooperative arrangements may be made with the Departments of Labor and Commerce for industrial subjects, while the studies of the administration of vocational schools, curricula, and methods of instruction in vocational subjects may be taken up in cooperation with or through the Bureau of Education. An appropriation of $200,000 per annum, available from the date of passage of the act, is made to the board for its expenses.

To cooperate with the Federal board in carrying out the act, each State when accepting its provisions is to designate a State board of at least three members. The State board of education or some board having charge of the administration of public education or of any kind of vocational education may be designated as the State board, or an entirely new board may be created.

The State board is to prepare plans for the approval of the Federal board, showing the details of the work for which it is expected

to use the appropriations. These plans, it is specified, must show the kinds of vocational education contemplated, the kinds of schools and equipment, courses of study, methods of instruction, and the qualifications and the plans for the training of the teachers and agricultural supervisors. In all cases the work must be conducted under public supervision and control.

The plans of expenditures for salaries in agricultural subjects must in addition show that the controlling purpose of the education is to fit for useful employment, that the training is less than college grade, and that it is designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home.

The Federal appropriations to the States are divided into three distinct groups, providing respectively for the payment of salaries of teachers, supervisors, or directors of agricultural subjects; for the payment of salaries of trade, home economics, and industrial subjects; and for the preparing of teachers, supervisors, or directors of agricultural subjects, and of teachers of trade and industrial and home economics subjects.

The main initial appropriation for salaries in agricultural subjects is $500,000. This is increased by $250,000 per annum during the next six years and then by $500,000 per annum during the next two years, making an appropriation of $3,000,000 for the fiscal year 1926 and annually thereafter.

The main appropriation for preparing teachers and supervisors is likewise $500,000 for the first year, but increases to $700,000 and $900,000, respectively, for the next two years and then becomes $1,000,000 per annum thereafter. The Federal appropriations for teacher training must be divided among agricultural, trade and industrial, and home economics subjects, no one of these subjects being granted more than 60 nor less than 20 per cent of the State's allotment for that year.

The act embodies a system of Federal and State administration of vocational education which is a compromise between the views of those who thought a separate system of public education should be organized for vocational purposes and those who believed that the unity of our present public-school system should be maintained. Each State is left free to establish a separate system or to make the vocational schools and courses a part of its existing system.

It is probably very fortunate that so much flexibility of organization has been incorporated in this act. This broad measure, which will affect the educational system of our vast country with its great variety of industrial conditions and possibilities, gives an unequaled opportunity for the study and trial of curricula, methods of teaching,

practical work, equipment, etc., adapted to a wide range of vocations and very diverse environments.

The training of the teachers provided for will throw a very heavy burden of responsibility on our higher technical institutions and particularly the land-grant colleges. These institutions have been very successful in training technical experts who have contributed in large measure to the success of our industries. They have not as yet paid any large attention to the training of teachers for secondary schools of the strictly vocational type. The pedagogy of this class of education is yet in its preliminary stages. It evidently will not do simply to copy what has been worked out abroad. There is therefore great incentive for men of original thought and inventive skill to enter this comparatively new field of teacher training.

For purposes of administration and inspection under the Smith-Hughes Act the Federal board has divided the country into five sections or regions. In defining these regions the States are grouped as follows:

I. *North Atlantic.*—Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, and Maryland. Headquarters in New York City.

II. *Southern.*—Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, Mississippi, Alabama, Arkansas, Louisiana, and Texas. Headquarters in Atlanta, Ga.

III. *North Central.*—Michigan, Ohio, West Virginia, Indiana, Kentucky, Wisconsin, Illinois, Minnesota, Iowa, and Missouri. Headquarters in Indianapolis, Ind.

IV. *West Central.*—North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Montana, Wyoming, Colorado, and New Mexico. Headquarters in Kansas City, Mo.

V. *Pacific.*—Idaho, Utah, Arizona, Nevada, Washington, Oregon, and California. Headquarters in San Francisco, Cal.

An agent of the Federal board for the fields of agriculture, trade, and industrial subjects is assigned to each region; the agents for home economics remain in Washington. These Federal agents are, in general, to act as administrative representatives of the Federal board in the field, to gather information regarding methods adopted by the several State boards for the administration of the act, and to inspect the work of the State boards in so far as it has to do with the requirements of the law, with the decisions and policies of the Federal board and with the approved plans for the States.

Up to January 1, 1918, 48 States have accepted the Smith-Hughes Act either by specific provisions of the legislatures or by act of the governor, and up to January 1, 1918, the plans of 48 States had been examined by the Federal Board for Vocational Education, approved,

and the board had certified to the Secretary of the Treasury that these States were entitled to receive the allotments for the year 1917–18, apportioned by the terms of the act.

Over 500 agricultural schools and classes were approved by State and Federal boards for carrying on the work in agriculture under the provisions of the Smith-Hughes Act.

The chief handicap in the promotion or introduction of vocational agricultural instruction was the lack of qualified teachers. This was due largely to the present war emergency—many of the agricultural teachers being drafted or volunteering for service in the Army.

In practically every State the State board for vocational education has provided a State supervisor of agriculture. In some cases this supervisor is a part of the organization of the State board and in some cases he acts in a dual capacity as head of the teacher-training work under the provisions of the Smith-Hughes Act and State supervisor of agriculture. This arrangement is due largely to a lack of funds on the part of the State boards for carrying on supervisory work.

In every State but one the State board for vocational education has designated the land-grant college as a teacher-training institution in agriculture. As a result of their designation as teacher-training institutions under the provisions of the Smith-Hughes Act, they have organized departments of agricultural education and are proceeding along very definite lines to train vocational teachers of agriculture.

THE ELEMENTARY SCHOOLS.

There has been continued effort on the part of many agencies to promote the various phases of elementary agriculture in the common schools.

Minnesota.—The work in agriculture in the rural schools has practically all been in the form of boys' and girls' club work. The majority of county superintendents have acted as county club leaders directing the work. The work has been taken up along 10 lines of home projects—corn, potato, pig, calf, garden, canning, poultry, cow testing, bread making, and sewing. Something like 5,000 boys' and girls' clubs were organized in the rural districts in 1918. Most of these come from the rural schools as a unit, with the teacher as the local leader and the county superintendent as county club leader.

New Hampshire.—For the past five years efforts have been made and plans formulated for converting the old-time nature study in rural schools into elementary agriculture of a practical type. During the year 1918, that effort has culminated in enrolling 32,000 school children in home-project gardening. This has been directly under school management through the State department, local superintendents, and teachers.

California.—The California State Board of Education passed the following regulation relative to agricultural instruction in normal schools: "For students entering after June 30, 1919, one unit shall be required in manual training or household arts or both, and one unit in the elements in agriculture, including practical work in gardening, floriculture, and plant propagation."

Massachusetts.—As a result of the appointment of county club leaders in each one of the county farm bureaus in the State, a thorough canvas of the rural schools has been made in an effort to interest them in both home and school garden work and junior extension club work. From 75 to 85 per cent of the rural schools have been reached during the past two years through these agents. In a few instances this has resulted in the establishment of some definite course in agriculture or home economics in these schools.

The extension division of the college of agriculture during 1918 made an effort to arrange a course satisfactory to high-school men that would be accepted by the college for credit on admission. It is felt that this would lead to steps to establish the work in elementary schools to fit the work in the high schools.

Wyoming.—The only teacher-training institutions below college grade in the State are some high schools offering one year of normal training. These schools were established in the fall of 1917, and the only work in agriculture offered in such schools is a short general course in agriculture that is designed to prepare pupils to teach in the elementary schools.

Michigan.—Three new county normal training classes have been established in the State in the past year and a few for the purpose of training rural teachers, making in all 53 such institutions. A law was passed in 1917 requiring all persons who are teaching in the elementary schools to have at least six weeks of professional training before a teacher's license can be issued to them. In all institutions giving training for rural teachers a semester's course in elementary agriculture and in the pedagogy of such subjects is given.

Montana.—In 1918 a bill passed the legislature making agriculture a required subject in the elementary schools. A course of study has been prepared including agriculture. Home project work is a part of the course of study and the State superintendent of public instruction has approved credit for project work to the extent of 50 per cent each year.

Kansas.—The teacher-training institutions below college grade offering work in agriculture are the high schools which are reimbursed from State funds for normal training work. These high schools are offering either one-half unit or a unit of agriculture as a part of the high-school work for those who are planning to teach. Previous to 1916–17 agriculture was not a fixed requirement, now at

least one-half unit is required in all normal-training nigh schools. About 90 per cent of them, however, give a full unit of that work. The State grants aid of approximately $200 for this work in approved high schools. The number of high schools giving the work now is 234, and the number giving the work before 1916–17 was 185.

North Carolina.—At the last session of the general assembly a bill was passed providing for a commission to be appointed by the governor for the purpose of preparing leaflets and bulletins containing courses of study, practical outlines in agriculture, to be used by the teachers as supplements to the text. Two bulletins, one for the sixth and one for the seventh grades have been prepared. These bulletins are somewhat in the form of laboratory manuals following the project plan, and it was thought by State officials that they are going to prove a great help to the teachers in making their agricultural work more practical.

New York.—An act of the New York State Legislature for 1917 provides for the employment of directors of agriculture in cities, towns, and school districts not maintaining a school of agriculture, mechanic arts, and home making. The purpose of this act is to employ a person who shall devote his time to interesting young people in practical agriculture and to giving technical instruction accompanying their practical work; to encourage cities and villages to employ supervisors for school, home, and vacant-lot gardening. The commissioner of education will apportion to each city, town, or school district employing or joining in the employment of a director of agriculture a sum equal to one-half the salary paid to such director, not exceeding each year the sum of $600 for each director employed. The purpose of this work is to encourage boys and girls to undertake agricultural enterprises adapted to their home conditions. The projects may include poultry, pig, and calf raising, growing a certain area of general garden or corn, potatoes, or other farm crops. A complete scheme is found in Bulletin 654 of the University of the State of New York.

Indiana.—Educational Bulletin No. 32 of the Vocational Series No. 17, entitled, "Supervised Home Project and Club Work," contains what is considered the ideal organization for club work in a county. It is described as follows:

> An attempt is being made in Montgomery County to perfect a more complete organization than has been possible heretofore in the State. With the financial assistance of the States Relations Service of the United States Department of Agriculture and the cooperation of all the agencies of the State and county, it is hoped that an organization will be perfected that will serve as a model for other counties.
>
> The work in this county is being directed by the county superintendent of schools and the county agricultural agent, working through a committee representing the board of education and such allied county organizations as the com-

munity association, the county fair association, the home economics association, the chamber of commerce, and the live-stock breeders. The fullest cooperation is assured from the banks, grain elevators, and business men. The teachers and their officials and supervisors are interested and in sympathy with the movement.

Each township will employ at least one teacher as a club supervisor. This local supervision will begin February 1, and while the schools are in session each township supervisor will devote time outside of school hours to visiting schools, arousing interest and getting the enrollment. At the close of school, the time of the township supervisor will be spent in visiting club members and giving instruction.

A county director of club work, giving full time to his task, is employed for the full year. He is to work with the township supervisors and teachers, under the direction of the county superintendent and county agent. He will train supervisors, assist in supervising the instruction in agriculture, distribute literature, and correlate the work generally.

Township and county exhibits, demonstration teams, club meetings, and frequent conferences are planned.

AGRICULTURAL EDUCATION AT MEETINGS.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The annual meeting in 1917 of the American Association for the Advancement of Science is one of the great scientific events of the year. It is a vast clearing house for ideas and results in science, and for the testing and molding of views. It presents the largest forum in this country for healthy, tempered but searching criticism in science, without which science becomes self-complacent, lax, and unexacting in its requirements.

The section of agriculture confined its program to a single session and was presided over by Dr. W. H. Jordan, of the New York State Experiment Station. Taken as a whole, the discussions were a frank acknowledgement of the present limitations of our agricultural knowledge, especially the full understanding of it, and some of the difficulties in its application in successful farming. It was a somewhat critical analysis of experimental methods, and it sounded a caution against premature generalization from laboratory results to the farm. As Dr. Jordan stated, the stations have been and are still putting too much time on mere variables that have no broad significance, and too little time on broad fundamentals. He called attention to the fallacy and unwisdom of attempting to state results in terms of dollars and cents, since these have no real permanent or scientific significance.

Speaking of the training of the investigator, Dr. L. H. Bailey held that the the research man should be a student in all that the name implies. The investigator in horticulture should have a grounding in chemistry, physics, and physiology, for the grasp they give on

methods and approach. And he should have training in systematic botany, not alone for its knowledge of plants but for its key system, for the drill in comparing things that are actually comparable. His training should also give him a contemplative, reflective habit of thought; and he should always continue to be a student. Unless he continues to acquire much of his preparation as he goes, his research spirit has got its growth. The investigator must prepare himself for each separate piece of work.

In addition to this training in the sciences, emphasis was laid on the need for much study of English, to give familiarity with words and terms in order to make sharp discriminations and comparisons, and to enable clear expression of thought and deduction. This is an all too frequent lack at present. Science is exact, in expression as well as in essence. No worker has a right to be understood except in the terms of his own language. Good training in logic was also advocated, in weighing of evidence, because ability in that line is one of the prime essentials of the investigator.

ASSOCIATION OF AMERICAN AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

Following the general policy adopted many years ago of meeting in alternate years in Washington, D. C., the Association of American Agricultural Colleges and Experiment Stations held its thirtieth annual convention in that city November 15–17, 1916. The selection of the Nation's capital this year seemed especially appropriate, in view of the predominance in the program of questions of nation-wide significance, the important relationship developing with various branches of the Federal Government, and the plentiful evidences of the growing realization of the essential kinship and community of purpose of the institutions comprising the great Federal system of education and research for whose interests the association stands.

The program of the association was by no means restricted to agricultural lines. The interests of the association are, of course, considerably broader in scope, and this year, in particular, much emphasis was put upon what may be termed its nonagricultural phases. In the general sessions especially, aside from the addresses of the Secretary of Agriculture and the president of the association and the presentation and discussion of the reports of the standing committees, attention was centered quite largely on the proposed establishment by the Federal Government of engineering experiment stations, the development of military training in the land-grant colleges, and the best ways of conducting extension work in home economics and similar lines of interest to farm women. This trend of the convention, however, in no sense betokened a diminution of interest in

agricultural education and research. On the contrary, it may be questioned whether the realization of the outstanding importance of these phases, and especially the need of adequate and systematic provisions for research, was ever more strongly in evidence. For example, it was the dominating note in the presidential address, given by Director C. E. Thorne, of the Ohio Station, upon the subject of "Progress of education and research in agriculture." Director Thorne reviewed the history of the land-grant colleges, especially in their relations to the experiment stations, and sounded a note of warning that the temptation to neglect the work of the stations in order to take care of the great pressure for educational work must be strongly resisted if permanent progress is to be made. As he pointed out—

> science can not stand still. Every extension of the horizon of our knowledge only expands the boundary of the unknown, and makes yet more imperative the necessity for further research, and the institution which contents itself with present knowledge will soon find itself forgotten.

College instruction in agriculture was discussed from several points of view. The report of the standing committee on instruction in agriculture dealt with the question of college credit for high-school agriculture. This included a study of existing conditions by D. J. Crosby, which indicated that agriculture is now accepted as an entrance subject in 44 of the 48 States, but that only one institution allows advanced credit. It was found that agriculture is now taught in 19 per cent of the high schools of the country, and the committee considered this a factor which might well be taken into account in college instruction to a greater degree. Certain fundamental principles of agriculture, it pointed out, might be taught as effectively in the high schools as in the freshman class, or even better if the college instruction is delegated to fellows and assistants of limited years and experience.

Some obstacles, however, were recognized to the acceptance of high-school agriculture, especially the wide variation in the grade of work accomplished. Care is needed in the selection of textbooks and apparatus and the outlining of courses, and it was suggested that the colleges might here render a useful service. In 28 States there is no systematic supervision of high-school instruction in agriculture. In some States the college and the State board of education cooperate, but it was believed that the efforts of the colleges in this field should be suggestive rather than arbitrary, and should scrupulously avoid the appearance of domination.

"Methods of improvement in teaching college agriculture" was discussed by Dean W. W. Charters, of the school of education of the University of Missouri. Dean Charters pointed out that the im-

portant thing in education is not apparatus or buildings or equipment, but the classroom intercourse of teacher and student. He believed that the present teaching of agriculture is very uneven in quality. One difficulty is that the results of teaching are less tangible than those of research and therefore easy to judge in a comparative way. The code of professional ethics which bars instructors of equal rank from the classrooms of others also hinders improvements and obscures the merits of efficient teachers. More attention to the formulation and application of pedagogical principles of agricultural instruction was earnestly advocated. It is of interest to note that very similar views were expressed in the section on engineering as regards instruction in that subject, and that close cooperation with schools of education was a suggested remedy.

The thirty-first annual convention of the Association of American Agricultural Colleges and Experiment Stations, held in Washington, D. C., November 14–16, 1917, seems likely to be long remembered as one of the most interesting and inspiring in the history of the organization.

The important service of the land-grant institutions in this country was attested by several speakers. Thus Secretary Houston declared that while at the time the country entered the war the Nation was not fully prepared for war in any respect—

> it was fortunately circumstanced in the character of its agricultural organization and the number and efficiency of its expert agencies. In fact, in efficient machinery for directing agricultural activity as represented by the land-grant colleges, the Federal Department of Agriculture, farmers' organizations, and its alert and patriotic rural population, it excelled any other two or three nations in the world combined.

"The Nation may well pride itself," he said, "on the fact that it had had the foresight generations ago to lay deep its agricultural foundations." He congratulated the representatives of the land-grant colleges on the fine opportunity for service presented to them and on the splendid way in which they had seized it:

> The Department of Agriculture has had great comfort in the thought that these institutions, ably planned and wisely directed, existed in every part of the Nation and stood ready not only to place themselves at the service of the National Government but also to take the initiative in a vast number of directions.

The duty of the agricultural colleges in teacher training was pointed out by the standing committee on instruction in agriculture in its report on college teaching in agriculture, with particular reference to the improvement of methods. In this report the committee expressed the view that:

> Strong departments of agricultural education will be needed under the administration of the Smith-Hughes Act in order to give the colleges of agricul-

ture the positions they should occupy in the training of teachers of agriculture. Unless these colleges take up the teacher-training work actively at the present time, the funds provided for this work under the Smith-Hughes Act are likely in many States to be divided among a number of institutions, including some of relatively low grade and poor equipment, with the result that our whole system for training teachers of agriculture will be fundamentally weak. The agricultural colleges ought to have a clear leadership in this field, and they can not have this unless they adequately equip their departments of agricultural education.

The committee also urged the development of such departments as a means of improvement of college teaching in general. It was recognized that in the past a large proportion of college graduates without special pedagogical training have done well as teachers, but—

they have succeeded in spite of the lack of professional training, and the percentage and degree of successes might have been much larger if the professional training had been provided. No matter how well manned and equipped the subject matter departments of the colleges of agriculture may be, they need the help of strong departments of agricultural education, not only in the training of undergraduates for teaching positions but also in improving the quality of teaching within the subject matter departments.

The 1917 convention revealed how closely the war has been brought home to the land-grant institutions, depleting the faculty and student body, interrupting many well-established projects, and compelling a redirecting of their entire program and point of view. More strongly, however, did it indicate how largely the Nation is relying on these institutions in the present emergency, and how important are the functions which are theirs to fulfill. It put this great body of public-service institutions, already conspicuous for a season's successful endeavor, formally on record as enlisted for the war, and with their full resources mobilized in the national service.

NATIONAL DAIRY SCHOOL.

The first New England meeting of the National Dairy Show was held at Springfield, Mass., October 12–21, 1916, on the grounds of the Eastern States Agricultural and Industrial Exposition. All previous records for attendance, exhibits, and profits are said to have been broken. Nearly 1,000 entries of dairy stock were on exhibition and the attendance is estimated as averaging close to 30,000 per day.

Much prominence was given to educational features at the show. The United States Department of Agriculture gave special attention to its extension work among boys and girls, with several thousand exhibits of their work and many demonstrations by boys and girls illustrating methods in canning, bread making, dairying, selection of seed corn and potatoes, gardening, treatment of plant

diseases, etc. A working dairy was also in operation by the department.

The intercollegiate stock judging contest was participated in by 18 institutions, many being represented for the first time. The highest rating for all breeds was attained by the University of Nebraska, with New Hampshire first on Ayrshires, Kansas on Guernseys, Massachusetts on Jerseys, and Nebraska on Holstein-Friesians.

There was also an intercollegiate butter judging contest, arranged for the first time. In this contest nine institutions were represented, first place being awarded to the Pennsylvania College.

After a lapse of three years, occasioned by the foot-and-mouth disease situation, the Fourteenth International Live Stock Exposition was held at Chicago in December, 1916. The agricultural colleges were again strongly in evidence, both the grand champion and the reserve champion in the bullock section coming from the University of California.

A new feature of the show is to be a special exhibit each year from some one agricultural college. The institution selected to initiate this practice was the University of Illinois, which depicted in miniature its campus and buildings and likewise a model farm divided into fields supporting a profitable and soil-building rotation as well as much other illustrative material.

At the students' stock judging contest, 16 institutions were represented, 3 for the first time. The first place was awarded to the team from Purdue University, second to the Iowa State College, and third to the Ohio State University.

Following a meeting called by the American Pomological Society, a National Congress of Horticulture was organized at Washington, D. C., in November, 1916, to serve as a central clearing house of horticultural interests. Active membership is to consist of delegates appointed by affiliated horticultural organizations on the basis of membership, and it is hoped thus to enroll representatives of from 50,000 to 60,000 members.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF AGRICULTURAL TEACHING.

The seventh annual meeting of the American Association for the Advancement of Agricultural Teaching was held in Washington, D. C., November 14, 1916. Two main topics were presented for discussion, the content of the course in the college of agriculture for prospective high-school teachers of agriculture and the high-school course in agriculture.

Under the first of these, Dean C. F. Curtiss discussed the relation of the sciences. He thought that the science taught ought to be

applied science, which will directly connect up with the work of the farmer and the community in which the teachers will serve.

As to general professional subjects, K. L. Hatch held that psychology is the basis of the professional preparation, but that whether or not there should be a course in general education is doubtful. The student's time is so taken up with technical work in agriculture that an effort should be made to reduce the professional preparation to the minimum. The course in agricultural education ought to include the principles of general methods. A certain amount of practice work should be required with real students, with real classes and conditions, and with problems teachers are going to meet. Prof. Hatch also discussed at length the growing demand for a course in the college known as general science or elementary science. In discussing this paper R. W. Stimson laid stress upon the importance of training college teachers of agriculture, if for no other reason than that the prospective teachers coming under their influence may imitate good teaching.

G. A. Works took up "The content of the methods course for high-school teachers of agriculture," outlining the work given in the New York State College of Agriculture. This course, which is given three or four times a year, is open only to seniors. It runs for a term with two discussion periods and one laboratory period 2½ hours in length each week. The class is limited to 50 and each laboratory section to 12 students. The laboratory and lecture work are closely correlated throughout the course, and special attention is given to the selection of material adapted to the high-school pupil and to its arrangement in seasonal sequence. Other topics taken up are the place of the home project and the organization of study material for the recitation lesson, the laboratory, and the field trip. A visit to a near-by high school is made for the purpose of studying equipment, library, and home projects, and some work is done in chart making and bulletin collecting and cataloguing.

In a paper on "How to connect the high-school work with practical farm operations," A. K. Getman suggested (1) a seasonal distribution of the topics studied, the study to coincide with the operations on the farm; (2) provision for field and laboratory work; and (3) the use of the home project properly planned, accounted, summarized, and supervised.

C. H. Lane, in a paper on "The content of high-school courses in agriculture," said that it is not merely a question of what is worth teaching and studying, but what is best considering all local conditions, equipment, time, teacher, community interests, adaptations, etc. Thus, the determination of the content and arrangement of a course in agriculture becomes a local problem and no general solution can

be given that will apply equally well to all localities. The following outline of work was, however, suggested: First year, practical work on how plants grow, soils and fertilizers, and field crops or fruits and vegetables, the choice depending upon local conditions as regards available material and interest in home project work. The second year should be given to the study of live stock. After such general courses the student is prepared for more special work. In sections where horticulture is important the third year may well be spent in such specialized branches of plant production as fruit growing, practical work on soils and fertilizers, cover crops, etc., as relate to the production of fruit, or market or vegetable gardening, and one-third of a unit on improvement of home grounds and ornamental planting.

Similar specialized courses should be provided in districts where one or more field crops, dairying, or some other special phase of animal husbandry predominates. In districts having broad interests in agriculture the school should be equipped to offer a number of special courses during the third and fourth years. While the subject of tools, implements, and machinery is necessarily considered in connection with crop production, the subject of farm mechanics is deemed sufficiently important to receive special attention during the fourth year. A half unit in rural economics and farm management should not preclude careful accounting in connection with the projects of each of the previous years nor the study of simple methods of accounting in connection therewith.

NATIONAL EDUCATION ASSOCIATION.

The usual attention was given at the meeting of the National Education Association at Portland, Oreg., July 7–14, 1917. The general topic considered by the National Council was "Agricultural preparedness and food conservation." W. H. Campbell, representing the Farmers' Educational and Cooperative Union of America, presented a paper at the section of the Department of Rural and Agricultural Education on "The rural people a strong factor in rural education problems," which dealt with the revision of the whole educational system of this country from the top down and with the building of a centralized school and its development into a community center for the people in Johnson County, Nebr. The speaker urged that the universities and normal schools be put on a full year, four-quarter plan, and have a department that will receive mature students who have completed the rural school. These universities and normal schools will then be in position to release students for winter vacations for the purpose of teaching short winter terms in the country. These terms should include a course strong in agriculture and domestic science, farm accounting, manual training, and mathematics.

In an illustrated address on "Results achieved in secondary agriculture and methods pursued in actual practice," H. N. Goddard of the Department of Education of Madison, Wis., indicated the progress in the development of secondary agricultural instruction. He stated that two viewpoints have developed in relation to the work, the informational or cultural and the vocational. The latter has gained in relative importance while the informational idea lacks sufficient motive and fails to give vocational training.

In the opinion of the speaker the school plat is a valuable school project and is desirable wherever it can be made certain that it can be well cared for during the summer vacation. The school farm of large size offers many difficulties and should not usually be undertaken in high-school departments. Among successful school or group projects, aside from the school plat, are steer fattening, keeping dairy cows, cow testing, poultry work, shopwork, and construction of all kinds of farm buildings. The school plat should be used for crop production demonstrations, illustrative material, and out-of-door experiments. Home or individual projects, regarded as the more fundamental, have included practically every phase of farm practice that can be carried out on the home farm or garden. Exhibits and contests have been very commonly developed in connection with the projects. Most important of all is the annual school fair held in most high-school departments, where the productive results are rounded up in direct connection with the school community. A large amount of extension work has been carried on. A large general result of all the work has been evident in greater interest and intelligence in the best farm practice and in rural life. A large per cent of the boys and girls in these courses are actually going back to the farms with minds awakened and trained for enthusiastic and efficient work. Many city boys have also been directed to the farm for their future occupation.

It is the unanimous opinion of this department of the association that the time has fully arrived for the establishment of special normal schools whose sole function is the study of industrial, social, and educational rural problems, and the training of teachers who are able to cope with these problems.

AGRICULTURAL EDUCATION IN OTHER COUNTRIES.

AFRICA.

A fifth school of agriculture has been erected at Glen, in the Orange Free State, the opening of which has been postponed because of the financial stringency created by the war. It has a farm of 4,000 acres, acquired at a cost of $97,200, and school and farm buildings erected at a cost of $194,400.

The schools, which are located at Elsenburg, Middelburg, Cedara, and Potchefstroom, and the new school at Glen, are located on large, well-stocked, and well-equipped farms, and offer the following courses: A one-year certificate course including theoretical and practical instruction in agriculture and live stock, farm economics and bookkeeping, agricultural engineering, veterinary science, poultry husbandry, horticulture, viticulture (at Elsenburg), and dairying; a two-year diploma course, including, in addition to the preceding subjects, agricultural chemistry and geology, agricultural botany and bacteriology, and agricultural zoology and entomology; a three-year advanced diploma course; a special course in dairying at the Grootfontein school at Middelburg, followed by practical work in a factory dairy; a two-week short winter course open also to women. At the request of the university council of the Cape of Good Hope, courses have been prepared and submitted for the third and fourth years at the agricultural schools for the degree of B. S. in agriculture.

BRITISH ISLANDS.

In 1916 the Board of Agriculture and Fisheries, dealing with the agricultural education work of the various institutions and local authorities in England and Wales, decided as a measure of war economy, to suspend the grants to the Harris Institute, Preston, and to the Royal Horticultural Society's School at Wisley. The Royal Agricultural College, Cirencester, and the Agricultural College, Uckfield, Sussex, were closed in the summer of 1915, owing mainly to the serious decrease in attendance. All of the institutions have suffered as a result of the war. The new buildings at the Armstrong College, Newcastle, have been wholly utilized as a hospital since the beginning of the war, and rooms in the School of Agriculture, Cambridge, and in Wye College, were occupied for a time for military purposes. The Royal Veterinary College, London, is the only institution whose activities have not seriously diminished. To encourage cheese making instead of butter making, with a view both of conserving the food supply and the economical utilization of surplus milk, the board developed a scheme of establishing traveling cheese schools, under which it loaned sets of apparatus to local authorities who agreed to make new and additional provision for itinerant instruction in this subject. Nineteen authorities availed themselves of this offer, and 33 new schools were created in addition to 5 previously in existence.

A report in 1916 on the question of education in its relation to agriculture, with special reference to the problem of how to increase the annual output of skilled cultivators of and workers on the land, by the education committee of the Central and Associated Chambers of Agriculture of Great Britain shows that 50 years ago the number of men working on the land in the United Kingdom was greater by

1,000,000 than it is to-day and to the concurrent steady decline in the production of the land. The committee recommends that the instruction of the elementary schools be made more practical and more truly based upon surrounding life; that new schools of the following types be created: (1) Centralized continuation day schools of the type existing in Canada, (2) the creation of a system of lower-grade instruction centers with courses that would review, complement, and give a more directly vocational bearing to the practical work already done in the schools for boys and girls, (3) a new type of farm school for boys and girls between 13 and 18 years of age to continue the instruction from the elementary school and definitely prepare them for settling on the land either in the United Kingdom or in the British Dominions, and (4) farm lads' clubs; that definite measures should be taken to interest the children in town schools in country life and to induce more poor law children to become interested in the cultivation of the land; that as far as possible all reformatories and industrial schools should have farms attached and the pupils be more directly encouraged to study agriculture; that continuation instruction should be compulsory; and the development of training to enable country children to enter the teaching profession.

Plans are under consideration for the establishment by the Board of Agriculture and Fisheries and the Board of Development Commissioners of Great Britain of a research institute for problems relating to agricultural machinery at Cambridge University in connection with the existing schools of agriculture and engineering.

A movement is on foot to raise a fund of $750,000 for the erection of new science buildings at the University College of North Wales "as a memorial to the men of North Wales who have fallen in the war." A gift of $100,000 has already been secured. It is announced that special prominence is to be given in the new buildings to agriculture and forestry.

The Southeastern Agricultural College at Wye, England, has organized a research and advisory department distinct from the teaching side of the college and governed by a separate representative committee, composed in part of research workers at the institution and in part of other scientific men. Some of the work in progress and in contemplation includes problems connected with the general practice of fruit growing, the biological study of flax, the conservation of fruits and vegetables, pasture studies, diseases of sheep, hop breeding, and fungus diseases and insect pests and their treatment by spraying.

The tropical school of agriculture which was opened at Peradeniya, Ceylon, January 15, 1916, received 77 students during its first year of operation. Each student had to cultivate one-sixteenth acre and grow three crops on it, a pulse, a grain, and a vegetable, conducting

all the operations himself. The average age of the students was 21 years. The school staff consisted of a registrar and four agricultural teachers who held the diploma of the Pooma Agricultural College and who carried out the ground work in all subjects. Ceylon had a total of 327 school gardens in 1916, an increase of 40 over the previous year. Government grants were received by over 160 schools for school-garden work.

CANADA.

In the four years that the agricultural instruction act has been in operation it has contributed a total of $3,400,000 to the Provinces. With the year 1917–18 the grants reach their maximum of $1,100,000 a year to continue until the completion of the act on March 31, 1923.

In the Province of Prince Edward Island, $2,500 is set aside for bonuses to teachers who give instruction in nature study and agriculture. Teachers especially trained in two sessions of the summer school receive $7 for the first half year and $5 for the second; those especially trained in one session of the summer school receive $6 and $4; and those who have not attended summer school but are doing creditable work receive $5 and $3. The requirements for grants include: (1) Systematic instruction in rural science in the school every week throughout the term; (2) a written report on the provided form to the department of education at the close of the term showing the instruction that has been given; (3) pupils' records of the work systematically kept in special rural science notebooks; and (4) supervised projects or gardens at the pupils' homes, or a well-kept school garden in which there are some valuable demonstrations and experiments with vegetables or field crops, or with both, as well as attractive flower beds and borders. A school garden neglected in the summer holidays will disqualify for part or all of the bonus.

In 1916 the provincial ministry of agriculture of British Columbia, which until then had always been united with some other ministry, was made a separate and distinct department.

Agricultural instruction has recently been introduced into the high schools of British Columbia in a systematic way. The first class in the Province was organized in September, 1915, and was followed by similar instruction in four other high schools in September, 1916. The instruction is being given by agricultural specialists, and is attended by a total of about 130 boys and girls. A two-year course has been outlined for these schools.

Equipment costing about $400 is available in each school, with from one-half to one acre of land for experimental and demonstration plats. The salary of the instructor is paid by the provincial department of education, and the remaining expenses by the local authorities.

The Alberta Department of Agriculture began extension work in agriculture last spring with district agents in the field at various points in the Province. The minister of education is cooperating to the extent of making the time of the classes in school available to the agents for the carrying on of the work in cooperation with the teacher and inspector. The plan is to have the pupils take actual part in the growing of garden crops, the raising of chickens, and the feeding and management of young stock on their own farms. Initial group instruction in the laying out, planning, and general cultivation of the home garden is given in the schools, where leaflets and bulletins, seeds, and a limited number of eggs are distributed. Competitions in caring for stock are carried on and the season's program culminates in a fall fair held in conjunction with the district fair or at the most convenient school or village center. The work is being conducted in five centers and about 100 schools are taking part in it.

In a special effort to populate and bring under cultivation large areas in northern Ontario, an agricultural high school and demonstration farms at New Liskeard, a government creamery at the same place, a 50-acre demonstration field near Matheson, and a plant breeding station at Fort William are to be established.

Plans are also under way for the necessary buildings and equipment for a new agricultural school to be established, through the Ontario Department of Agriculture, near Kemptville in eastern Ontario. It is intended to give useful and practical instruction in agriculture to young men between the ages of 16 and 25 who have left school. It is not proposed to duplicate anything already being done in the Province unless to some extent the first two years of the course at the Ontario Agricultural College. The regular course will not be longer than two years and there may also be a number of short courses.

Special provision has been made in Ontario for furnishing homesteads to returning soldiers. These soldiers will first be sent to an agricultural training depot being established at the Government experimental farm at Monteith, where they will receive instruction. When a sufficient number have been trained, a farm colony will be opened at some point along the railway in charge of a competent superintendent. Farms containing not over 80 acres will be laid out and so planned as to bring the various farm houses as closely together as possible. A 10-acre tract will be cleared on each farm, and when this is completed the farm may be allotted free of charge to a soldier. He may also receive machinery, live stock, etc., to the value of $500, this being reimbursable within 20 years. The final title to the land will be given after five years. The community system will be fol-

lowed in supplying horses, other stock, and implements, and cooperative methods of buying and selling will be used.

Other plans for placing soldiers on the land are also under consideration.

The chief of the Military Convalescent Home of Sans Bruit, Quebec, has made arrangements for teaching agriculture to convalescent soldiers, the courses being in charge of a district agricultural representative. Instruction has been given in practical work in drainage surveys and rotations on the hospital farm, commercial poultry keeping, market gardening, and beekeeping. Some of the convalescents have also helped in field husbandry, soil preparation, harvesting, etc.

What are known as the royal agricultural schools, incorporated by the legislature of Quebec, are designed to give instruction to the sons of soldiers. These schools and farms are situated in the township of Howard, Argenteuil County, and are open to the sons of all soldiers who have taken part in the war. The property of the schools consists of 3,468 acres, with a large residential building to accommodate 25 boys, a residence for teachers, and a number of cottages for workmen. The parents of the boys will be under no expense for their sons while they are at the schools, and when of sufficient age the boys will be assisted in making a start for themselves.

CHINA.

Considerable attention is now devoted in China to agricultural education and experimentation in various classes of institutions. An experiment station was located at Peking in 1907, under the control of the board of agriculture, industry, and commerce. An experimental tract of nearly 300 acres is available, and departments of crops, soils, animal husbandry, horticulture, floriculture, entomology, botany, forestry, bacteriology, and biology have been put in operation. In 1907 an agricultural college was organized in connection with the station, but this was disbanded in 1915.

Subsequently an agricultural college and experiment station was established at the capital of each Province along much the same lines as at Peking, and many other stations in additions. There are now reported to be 130 stations in the 22 Provinces, of which 31 are in Chihli, 25 in Szechwan, 15 in Hu-Long-Kiang, 7 in Hupeh, and 7 in Kwangtung.

Among these are two cotton-experiment stations, one at Cheng Ting Hsien, Chihli, and one at Nan T'ung Chou, Kiangsu, with a third under consideration at Tung Haing Chou, Hupeh. Experiments are being conducted at these stations in seed selection, seed distribution, plant harvesting, soils and manures, treatment of pests, and cotton weaving. A corps of students is also being trained at these stations.

Stock-raising experiment stations have been established at Kalgan and Shih Men Shan, Anhui. These are expected to study the improvement of breeds of domestic animals, promote the breeding and sale of stock and stock raising enterprises, and the cultivation of forage crops.

Considerable attention is also being devoted to forestry in China. A department of forestry was organized in January, 1916, with a forestry commissioner in each province. Forestry-experiment stations and training schools have been established at Ch'ang Ch'in Hsien, Shantung, and in the Temple of Heaven at Peking.

The university at Nanking has maintained a college of agriculture and a school of forestry for several years. This is an American-supported institution, and in 1915 had enrolled about 70 students in agriculture. A colonization association has been organized under its auspices, with provision for the reservation of about 35 acres in each colony for a model farm. A tract already purchased on Purple Mountain, just outside Nanking, is to be used as an experiment station in connection with the different colonies.

An agricultural experiment station was opened at Nanksuchou, Anhwei, in 1915, as a part of the American Presbyterian mission station. Agricultural work was taken up at this institution partly as a practical way to teach Christianity, partly to make friends, and partly to improve economic conditions. The station is located on the railway between Nanking and Tientsin, and attempts to serve an area of about 6,000 square miles and from 1,500,000 to 2,000,000 people. The farming methods in use are those of from one to two thousand years ago. Special prominence is being given in the experimental work to seed selection, better tillage methods, more and better fertilization, drainage, and animal husbandry. The work is to be largely of a demonstration nature during the present pioneer stage, and will also include an agricultural school, a school farm, and short winter courses for farmers.

LATIN AMERICA.

According to the Bulletin of the Pan American Union a practical school of agriculture has been opened at Aconcagua, in Chile, and steps have been taken to found an agricultural school for women in the Province of Aconcagua.

The agricultural school at Challapata, Bolivia, for the instruction of the natives has been moved to Rosario Plantation, near the town of Challapata, and enlarged.

A recent executive decree in Colombia provides for the establishment of a tropical agricultural station annexed to the national institute of agronomy in the municipality of San Lorenzo, Department of Tolima. General instruction is expected to be given in various branches of agriculture and allied sciences, including veterinary science, and courses will also be arranged for students who desire to

specialize along certain lines. Particular attention will be paid to teaching students how to distinguish beneficial from injurious insects met with in practical agriculture. The government of the Department of Antioquia has taken preliminary steps to establish a laboratory for the manufacture of vaccine to be used by stockmen in the prevention of murrain and similar diseases of cattle. A recent executive decree places the national meteorological service, established in 1917, under the department of public instruction.

The school of agricultural mechanics at Bahia Blanca, Argentina, which admits pupils of not less than 17 years of age, had an attendance of 32 in 1916. The shops of the school have been equipped with new machinery.

The Department of Agriculture of the Dominican Republic has provided a traveling agricultural instructor to recommend measures for obtaining more abundant yields of staple crops. An agricultural school was recently organized at Charpentier, Haiti.

An agricultural experimnt station of the coeducational schools of Amatitlan, Guatemala, recently began operations, the equipment having been donated by a philanthropic citizen of the community.

In Mexico a school of agriculture was opened in Hermosillo, the capital of the State of Sonora, in March, 1917, under the direction of the governor of that Commonwealth. In the same month a national forestry school was inaugurated at Coyoacan, a suburb of the City of Mexico. The agricultural experiment stations in the States of Vera Cruz, Puebla, San Luis Potosi, Oaxaca, and Tabasco have been supplied with modern machinery and appliances, as well as improved seeds, and instruction by experts will be given to farmers in these States. A publication entitled Rivista Agricola has been founded in the national capital.

An agricultural school has been established in the Department of Leon, Nicaragua, with Manuel Godoy as president. The Government has also formulated a plan for a course of instruction in the new national school of agriculture, according to which there will be a section for the instruction of laborers or farm hands, a section for agriculturists or farmers, and a section for agronomists or agricultural engineers. The governor of each Province is to select by competitive contests two boys who have passed the fourth grade of primary instruction and are over 13 years of age for entrance into this school at the expense of the State. A school for boys not over 16 years of age who have studied agronomy for at least a year was opened recently at Chinandega City, with an appropriation of $5,000 for its installation. It is equipped with up-to-date machinery and implements necessary for the proper cultivation of cereals and other crops, and makes a specialty of teaching its pupils the practical use and advantages of machinery in agricultural operations

The Government of Uruguay has granted 10 scholarships in its agricultural school to young Paraguayans who desire to continue their studies in Uruguay.

An executive decree in Uruguay places its agronomic stations under the immediate supervision and control of the Department of Fomento. At the suggestion of the park commission of Montevideo, a school for gardeners has been established in the national capital for the purpose of supplying special skilled labor of this kind.

School and Society announces that a Pan-American university has been established in the Republic of Panama. The trustees are to consist of the Secretary of Public Instruction of Panama and the diplomatic representatives of the American Republics or their delegates, together with similar representatives of other nations which may maintain chairs in the university. It is hoped that the institution may be of international value, especially along the lines of medicine, law, and agriculture.

In Venezuela, a presidential decree of March 12, 1917, creates an experimental station of agriculture and forestry, with an acclimatization garden, to be located near Caracas, and intended to serve as a model for other such stations to be established in other parts of the Republic. The objects of the station are the improvement of the methods of cultivation of the principal agricultural products of the country; the introduction, selection, and distribution of seeds; experiments in reforestation; the suitability of soils to crops and of crops to the various regions; and practical work for the training of agricultural foremen and forest rangers.

The Council of Public Instruction of Ecuador has arranged to establish an agricultural class connected with the faculty of science of Central University at Quito. The professor in charge of this course is also to edit an official bulletin to encourage the study of agriculture.

PHILIPPINE ISLANDS.

Beginning with the school year 1917–18, all schools where a course in farming is given are to be in session throughout the year. This is not entirely a new venture, as for several years all settlement farm schools and most agricultural schools have been in continuous session, and notwithstanding the younger pupils enrolled in them, these schools have maintained the best farms.

The calendar year has been divided into 42 weeks of classroom work, 4 weeks of special field practice, 4 weeks of vacation, and 1 week each for examinations and an annual cleaning up. Each pupil enrolled will be given a vacation of 4 weeks at the time in the year that the farm activities can best spare his services. All teachers assigned to farm schools are required to render service throughout the

school year, except that short vacations may be given when their services can be spared.

It is believed that students should be detailed to definite projects and thereby become factors in a productive enterprise. Each pupil is expected to do field work for not less than 4 consecutive periods (160 minutes) each day for 5 days a week, and daily field work up to 3.5 hours may be required at the option of the principal. Each pupil is required to perform at least 3 hours of field work on every other Saturday forenoon.

EDUCATIONAL WORK OF THE DEPARTMENT OF AGRICULTURE.

During the past two years extension education through specialists has become prominent, both at the State agricultural colleges and in the Department of Agriculture. Both at the State agricultural college and in the Department of Agriculture are specialists in various branches of agriculture who aid county agents in their work, and also give direct instruction to farmers in counties where there are no county agents. A specialist is generally an extension agent who has a very thorough knowledge of some particular line of work and who is efficient in presenting his subject to the county agents and the farmers. He may be differentiated from the county agent in that the county agent has to cover in a more or less thorough way the entire field of agriculture, whereas the specialist's field of work is generally limited to a narrow field, such as dairying, horticulture, poultry, etc.

The principal lines of extension work of this character being conducted in the Department of Agriculture are hog-cholera work, pig and poultry clubs, dairying, and animal husbandry, through the Bureau of Animal Industry. All of this work is conducted in cooperation with the agricultural colleges in the several States under project agreements mutually entered into as a part of the general system of cooperation under the general memorandum of understanding between the Secretary of Agriculture and the colleges of agriculture.

In hog-cholera work veterinary field agents have been appointed to cooperate with county agents and demonstrate to them and to local veterinarians and farmers the prevention of loss from hog cholera and of the spread of the disease from herd to herd by the use of the serum treatment and proper quarantine and sanitation of premises.

In the dairy-extension work specialists are appointed to conduct work in the various States through county agents and otherwise by organizing cow-testing associations, bull associations, teaching the keeping of herd records, planning the construction of silos, the remodeling of dairy barns, milk houses, and other dairy buildings, establishing feeding demonstrations, management of herds, and other special dairy-farm problems.

In soils, forestry, plant pathology, marketing and rural organization, etc., specialists are also employed to carry on extension work.

In addition to the fund provided for the regular cooperative agricultural extension work, Congress passed in 1917 the food-production act, which includes an item of $4,348,400 for increasing food production, eliminating waste, and promoting conservation of food, by educational and demonstrational methods through counties, districts, and urban agents, and others. Under the provision of this act over 1,600 emergency demonstration agents have been employed, and for the first time agents have been designated to take up work in the larger urban centers.

The enrollment in the South in boys' and girls' agricultural clubs increased in 1917 and now approximates 100,000 in the regular clubs. In addition to the regular enrollment, approximately 20,000 were enrolled to assist in meeting the emergency incidental to the war. A large number were enrolled in wheat clubs for 1918, wheat, rye, and oat clubs being organized wherever the growing of these crops was thought to be practicable.

Farm makers' clubs for negro children were organized during 1917 in several States. Much work has been done every year in these clubs among the negroes, but it was systematized as a separate project in 1916.

Pig and poultry clubs promoted in cooperation with the animal husbandry division of the Bureau of Animal Industry are very popular. Poultry clubs which consist largely of school pupils are usually organized in the schools through the direction of the county agents, the teachers serving as local leaders or supervisors of the work. Officers, including a president, vice president, and secretary are elected, meetings held as regularly as possible, and the work carried on in an educational and businesslike manner. The State poultry club agents or poultry specialists working under the supervision of the Animal Husbandry Division, Department of Agriculture, and the director of extension at the State agricultural college, visit these schools and deliver lectures on various subjects as well as give actual demonstrations on selecting, culling, killing, and dressing for market, and other phases of poultry work.

For the fiscal year ending November 1, 1917, 8 States, comprising 281 counties, were carrying on the work, representing 1,010 clubs and 13,664 members. Club members furnishing reports hatched, during 1917, 98,272 chicks and raised 80,310 mature fowls. They sold $17,908.25 worth of poultry and eggs for market and breeding purposes and the total value of their receipts, stock on hand, and prizes won amounted to $41,312.42. In addition to other school work, these poultry club members are becoming proficient in the selection and judging of standard-bred poultry, and also demonstrating their ability to carry on various phases of poultry work, such as operating

incubators, preserving eggs, caponizing cockerels, killing and dressing fowls for market, etc.

Boys' and girls' pig clubs are also quite closely interwoven with the rural-school system. The pig clubs are usually organized around a school or community as a unit. The rural teachers are recognizing the value of pig clubs as a vitalizing factor in school work and are heartily supporting it. Many rural teachers are acting as local leaders, and swine extension workers visit the schools and give lectures, demonstrations, etc., on swine work.

The school pig is one phase of the pig club work in which the rural school is especially prominent. A great many rural schools have raised a pig on the school grounds, the pig usually being fed on the scraps from the children's dinner pails.

The progress made in boys' and girls' pig club work has been quite satisfactory. During the past year 35,980 members completed their pig club work, and there are now more than 100,000 boys and girls enrolled for this season's work. The average profit of the members fattening a pig was $11.38, and that of the members raising a sow and litter was $72.84. Seventy-one per cent of the members raising breeding stock had pure-bred animals. Pig club work is now carried on in 28 States.

During the year ending June 30, 1917, there were in the 33 Northern and Western States 1,124 paid leaders working in connection with the boys' and girls' club work. In addition to the paid leaders there were 9,748 volunteer club leaders. Two hundred and forty club leaders were paid cooperatively by the State and the United States Department of Agriculture, 133 by the State agricultural college and the local people, 18 by the college only, and 733 by the local people.

During the year ending June 30, 1917, there were in the 33 Northern and Western States a total enrollment of 406,633 members of regularly organized clubs. In addition to this about 400,000 boys and girls were enrolled in the war-emergency projects—growing gardens, canning food products, raising poultry, making war bread, and doing other things of a special character.

During the period from December 1, 1916, to April 1, 1917, 3,589 club members in the Northern and Western States attended the one or two weeks' short courses at the State agricultural colleges; 1,528 of these were champions of their respective counties in the boys' and girls' club work and were sent by the local people free of expense to attend the courses.

The division for agricultural instruction of the States Relations Service continued its project which had to do with the study of the methods of organization and administration of instruction in agriculture in public schools, the training of teachers for this work

and the relationship of different agencies in promoting such instruction. Under this second project four additional conferences dealing with the problem of teacher training in land-grant colleges (making seven in all) have been held. The aim of these conferences held both in the North and the South was to work out a tentative course which may be taken as a guide for training teachers in agriculture and to cooperate the various forces and agencies which would promote agricultural education.

This divison has continued its work in the preparation of courses of study for teachers of elementary agriculture in cooperation with State agricultural colleges, experiment stations, and State departments of education. Bulletins have been prepared and published for the schools of Virginia and Ohio. Similar courses have been prepared for Vermont. In addition to these bulletins others have been issued dealing with the elementary school courses in agriculture; among the recent ones are Lessons on Tomatoes for Rural Schools, Lessons in Poultry for Rural Schools, Lessons on Pork Production for Rural Schools, Lessons in Dairying for Rural Schools.

. The publication of the Agricultural Education Monthly has been discontinued and in its place have been issued a series of documents dealing with various phases of secondary instruction in agriculture.

A series of leaflets on how teachers may use Farmers' Bulletins have been prepared. Twenty-one in all have beeen prepared, of which 18 have been published.

The beginning of the administration of the Smith-Hughes act has brought demands for a large amount of service which has not been in printed or multigraphed form. A memorandum of cooperation between the Federal Board for Vocational Education, the Bureau of Education of the Department of the Interior, and this bureau contemplates a series of investigations under the Smith-Hughes Act, a part of which shall be conducted by the division of agricultural instruction. The committee representing this cooperative work has already begun the plans for such studies. A bulletin on the home project as a phase of vocational agriculture has been prepared by this division at the request of the Federal Board for Vocational Education and submitted to the board for publication.

This division has made an extensive study of the problems of visual instruction in agricultural education and has completed a series of lantern-slide lecture sets dealing with various phases of agricultural education. Among those more recently added to the list are How to Teach Poultry Lessons in Elementary Schools, Lessons on Tomatoes for Rural Schools, and Teaching Garden Practice.

Plans have been developed by means of which illustrative material of various types may be made more available to schools in the several States, especially to help State officers prepare duplicates of our material.

The literature on agricultural education has been reviewed and abstracted by this office. Card indexes of the world's literature of agricultural education, as well as American and foreign institutions for agricultural education and home economics, were maintained by the division.

THE AGRICULTURAL COLLEGES.

The declaration of a state of war in April, 1917, profoundly affected our system of higher education in agriculture almost immediately. Attendance, which in most land-grant colleges had been steadily rising from year to year was suddenly depleted as the call came for one form or another of national service. Some institutions closed their doors early in May and in others the work went on under greatly changed conditions.

In response to an inquiry from the Secretary of the Interior as to the duty of the land-grant colleges and technical schools during the war, the situation was admirably stated by President Wilson in a letter of July 20, 1917, as follows:

> The question which you have brought to my attention is one of the very greatest moment. It would, as you suggest, seriously impair America's prospects of success in this war if the supply of highly trained men were unnecessarily diminished. There will be need for a larger number of persons expert in the various fields of applied science than ever before. Such persons will be needed both during the war and after its close. I therefore have no hesitation in urging colleges and technical schools to endeavor to maintain their courses as far as possible on the usual basis. There will be many young men from these institutions who will serve in the armed forces of the country. Those who fall below the age of selective conscription and who do not enlist may feel that by pursuing their courses with earnestness and diligence they also are preparing themselves for valuable service to the Nation. I would particularly urge upon the young people who are leaving our high schools that as many of them as can do so avail themselves this year of the opportunities offered by the colleges and technical schools, to the end that the country may not lack an adequate supply of trained men and women.

It will be noted that in this statement particular stress is laid upon the need for men trained in applied science. In this group will be included, of course, the graduates of the agricultural colleges. In view of the important and unique functions which these institutions have to fulfill, and the realization that in some ways the conditions regarding their prospective attendance differed from those in other institutions, it was deemed of general interest to ascertain, after their reopening in the fall of 1917, how they had fared as regards enrollment. A general survey of the existing situation showed that the average decrease for the institutions reporting was slightly over 30 per cent and in numerous cases exceeded 50 per cent. Some sectional variation was noticeable, several southeastern colleges maintaining their previous registration and others falling only

slightly below it, while losses were exceptionally heavy in the Southwest and in the Middle West.

On the other hand, the average decrease in mechanic arts was approximately only 15 per cent and did not exceed 36 per cent for any institution.

Analysis of the registration by classes in the agricultural colleges revealed heavy losses at every stage. As would be expected, the senior class was largely effected, decreases from 40 to 60 per cent being not uncommon.

The depletion of the junior and sophomore ranks was found to be somewhat smaller in most institutions.

The entering classes, however, present a special problem for consideration. Before the war steadily increasing numbers of freshmen, in many cases taxing the capacity of the college, had been the rule, but in the fall of 1917, 36 institutions reported losses ranging from 8 to 60 per cent. The Texas College reported an increase of over 12 per cent, resulting in the largest class in its history, and four others showed smaller gains, but the average for the entire group was a loss of about 25 per cent.

Expressed not in percentages, but in actual numbers, the data are even more striking. For the institutions available the freshmen aggregated in 1916, 4,630, and in 1917 only 3,463. This means a decrease of 1,167 freshmen students in agriculture in the 41 States reporting this item.

Another problem before the land-grant colleges to-day is the provision of special courses to meet the emergency needs. Thus, as regards the training of teachers, at the outbreak of the war there were upwards of 1,000 college trained young men teaching agriculture in schools below college grade, the number has now been seriously depleted, while the development of work under the Smith-Hughes Act alone has created a demand for several hundred additional instructors with such training. It is suggested that the colleges can do much to "prevent the serious lowering of standards by increasing their facilities for training undergraduates for the teaching profession, by conducting emergency courses for teachers now in service, and by the intensive training along agricultural lines of college graduates in arts and science courses."

Emergency short courses in agriculture have already been offered by a number of institutions and their further development seems logical.

The committee on instruction in agriculture of the Association of American Agricultural Colleges and Experiment Stations was of the opinion that not within a decade "has there been a time so favorable for giving serious attention to measures for improving the

quality of teaching in the colleges themselves as the present war emergency affords."

If the reduction in enrollment of agricultural students by nearly one-third seems discouraging, it is well to reflect that in England wholesale losses of faculties and students have occurred, that several institutions have closed their doors, and that others have been very seriously restricted in their operations. In our own country no such developments are expected and often the enrollment is far in excess of that of a few years ago. When the importance of trained agricultural leadership becomes thoroughly realized, particularly in its relations to the existing emergency, there need be little doubt that the agricultural colleges, as the training ground for such leadership, will receive and retain the full support in every direction which they will need for this vital service.

BUILDINGS.

The new Hilgard Hall at the University of California is an elaborate four-story structure, of reinforced concrete, 60 by 300 feet, costing with equipment about $370,000, and constituting the second of the three buildings which will complete the agricultural quadrangle. It will serve as the headquarters of the college of agriculture, housing the departments of agronomy, citriculture, forestry, genetics, pomology, soil technology, and viticulture.

The new animal-husbandry laboratory at the Iowa State Agricultural College has been completed. It is a one-story building 74 by 112 feet, costing about $50,000. It has been devised especially for work in connection with the slaughtering, dressing, cutting, and curing of meats. The basement contains a 10-ton refrigerating plant, coolers, a smokehouse, refining, sausage, lard, and other by-product rooms, offices, etc. The main floor can be divided into three distinct rooms, or used as a whole for demonstration work.

The new beef-cattle barn at the University of Minnesota, to replace the structure burned, is practically completed. It is 60 by 120 feet with a wing 36 by 120 feet. The portion to be used as a stable is built of hollow tiles with reinforced concrete. Two hollow-tile silos adjoin the stable, and the wing contains a laboratory for class work and demonstration. The total cost is about $25,000.

A two-story institute hall has been completed at the Duluth substation. The first floor contains an auditorium and office space, and the second dormitory accommodations, a kitchen, and a dining room. The new equipment will make possible the holding of community gatherings at the substation, as well as afford a meeting place for various farm organizations of northeastern Minnesota.

Wolf Hall, the new $280,000 building at Delaware College, will house all the activities of the agricultural department and temporarily the college departments of chemistry and biology.

Plans have been approved by the building committee for the new agricultural building at the Maryland State Agricultural College. The legislature has appropriated $175,000 for the construction of this building, which will be a three-story and basement structure with a front wing 200 by 68 feet connected with an inclosed bridge with an auditorium seating about 1,000 people and this in turn connected with a rear wing with the same dimensions as the front.

A plant for the curing and drying of meat is to be erected on the New Jersey State Agricultural College farm. The structure will consist of two fireproof and two waterproof compartments, one to be used for the slaughtering of animals and the other for the curing and storing of meat. There will also be a small compartment for smoking meats. This plant will provide facilities for instructing students in the long and short courses in agriculture in home butchering, which will be given due attention as a part of the campaign for the conservation of foodstuffs.

Substantial progress is being made in the construction of a new $100,000 administration building, auditorium, and museum at the New York State College of Agriculture.

The Oklahoma Agricultural College and station has recently completed a modern two-story grain storage house. The upper story will be used for laboratory work in plant breeding, seed selection, etc. The lower floor has six rooms, three of them designed for storage rooms for small grains and equipped with special appliances for fumigation, and the remainder are designed for a general receiving and work room, a machine room for the graders, ginners, etc., and a general storage room, respectively.

APPROPRIATIONS.

A State appropriation in Alabama of $100 per annum for the years 1915–1918, inclusive, is now available for each county that raises a similar sum to be used for prizes, premiums, and other phases of boys' and girls' club work. These funds are spent under the joint supervision of the State board of agriculture and the county authorities under plans and rules submitted by the professor of school agriculture of the Alabama Polytechnic Institute.

The Arkansas Legislature for 1917 appropriated $481,000 for the ensuing biennium for the divisions of liberal arts, agriculture, engineering, and education. This is an increase of approximately 50 per cent over any previous appropriation.

The Connecticut General Assembly of 1917 appropriated $28,000 for the construction of a central heating plant at the State agricultural college, and added $2,500 per year to the maintenance appropriation of the station. Other appropriations for the biennium included $12,000 for the State entomologist, $40,000 for the suppres-

sion of gipsy and brown-tail moths and nursery inspection, and $15,000 for the control of white pine blister rust.

A law passed by the Montana Legislature in 1917 appropriated $10,000 for the reimbursement of the cost of transportation to and from their homes of students at the State agricultural college, the State university, the State school of mines, and the State normal college. The purpose of the act is to equalize the cost of attendance at these institutions to students coming from distant parts of the State.

The Delaware Legislature appropriated in 1917 a total of $285,890.27 to the State agricultural college for the ensuing biennium. Among the items authorized were $125,000 for the new dormitory at the women's college, $32,000 per annum for the maintenance of that college, $32,000 for a new heating plant, $10,000 per annum for the maintenance of the agricultural department, $7,890.27 for agricultural extension. Gifts made to the college from an unannounced donor during 1916 amounted to $1,000,000 and are being utilized largely for buildings.

The Kansas Legislature for 1917 appropriated to the State agricultural college $80,000 for the purchase of land to be used for animal husbandary, dairy, and poultry farms, and $50,000 for an addition to the agricultural building.

The Massachusetts Legislature for 1917 appropriated to the State agricultural college $40,000 to enlarge the power plant, $33,000 additional for new equipment, and $10,000 for maintenance and improvement of the market garden substation at Lexington.

In 1917 the New York State Legislature appropriated $779,401 for the State agricultural college for the ensuing year, in addition to an earlier emergency grant of $55,910 for the present year and $42,000 for printing.

A bill appropriating 125,000 pesos ($62,500) for the establishment of an experiment station in connection with the college of agriculture, was passed by the Philippine House of Representatives at its 1917 legislature.

The Porto Rico Legislature at its last session appropriated $1,000,000 for aid in the growing of food crops. In 1917 about 40 rural teachers were engaged in all sections of the island.

A bond issue of $1,000,000 was authorized by the Tennessee State Legislature in 1917 for buildings and other improvements by the State university, supplemented by the proceeds of the half-mill tax, estimated to produce about $336,000 per annum at present and to be used for maintenance. About $100,000 may be used for the construction of buildings at a substation in middle Tennessee.

The Texas Legislature for 1917 established the West Texas Agricultural and Mechanical College on a grade coordinate with the existing institution at College Station, as well as a junior college located

elsewhere to give two years of high-school agriculture and two years corresponding to the freshman and sophomore years of college work. Provision has also been made by the legislature for establishing a third junior agricultural college to be known as the Northeast Texas Agricultural College. An appropriation of $250,000 has been made for its establishment and maintenance. Special appropriations were made for the station and substations, aggregating $225,095.34 for the year beginning September 1, 1917, and $181,270.40 for the following year.

The 1917 legislature of West Virginia granted an additional $75,000 for the agricultural building. The legislature also appropriated $20,000 for buildings on the new farms.

EXTENSION AND SHORT COURSES.

Special instruction courses for extension workers were held in December at the University of Arkansas, and a course specially designed to meet the needs of home demonstration agents, including English, gardening, dairying, rural sociology, poultry work, rural social engineering, household conveniences, rural recreation, sanitation, home nursing, care of infants, etc., from January 7 to February 2, 1918.

Four-year professional courses in forestry and forest engineering have recently been established at the University of California. A 12-weeks short course was also given, begining January 15, 1917, to help practical woodsmen. The work included theoretical training in surveying, log scaling, timber estimating, logging, fire protection, silverculture, forest administration, trail and telephone construction, English composition, grazing, and the work of the United States Forest Service.

A feature of the annual short course in January at the Georgia State Agricultural College was the food-conservation school for farm women. County demonstration and home economics agents who have recently taken up work in the extension departments were also present at these courses.

A four-weeks course in dairying has been offered at Purdue University to women preparing themselves to fill positions in factories manufacturing dairy products. This course included the testing of milk and dairy products, the making of soft cheese and ice cream, dairy bacteriology, general dairying, and lectures on food production.

A special short course was arranged at the Iowa State Agricultural College in November, 1917. This course included instruction in agriculture, home economics, engineering, and industrial science, and was open to young people who have not yet completed high-school work as well as to those prepared for full collegiate instruction.

Evening courses in various branches of agriculture were offered in 1917 at the Maryland State Agricultural College. These courses included special work in beekeeping, poultry raising, and fruit growing for suburban residents of Washington, D. C. College credit was given for these courses so far as practicable, with a system of certificates showing all work completed.

The Annual Farmers' Convention, held at the North Carolina Agricultural College and Station, in August, 1916, under the auspices of the college, station, and extension workers, was one of the most successful meetings of its kind yet held in the State. About 3,000 men and 2,000 women were in attendance. The special subject of the meeting was rural education, which was graphically presented by means of an exhibition in which several booths were grouped around a larger booth in one of the college buildings. The smaller booths represented the activities of the station and extension service, while the larger booth represented a consolidated or farm-life school.

A school of education has been organized at the North Dakota State Agricultural College with four courses covering four years and two courses covering two years for completion. The four-year curricula are designed for teachers of agriculture, the mechanic arts, science, and vocational and rural school administration, while the two-year curricula are for teachers in consolidated schools and special teachers.

THE GRADUATE SCHOOL OF AGRICULTURE.

The seventh session of the Graduate School of Agriculture, under the auspices of the Association of American Agricultural Colleges and Experiment Stations, was held July 3–28, 1916, at the Massachusetts Agricultural College. The attempt was made to develop a more systematically organized plan of work at this session than had hitherto been undertaken. This plan involved work in two main lines. One of these included progressive consideration of the fundamental factors involved in the growth of plants and animals. The other dealt with the economic and social factors which enter into the development of profitable systems of agriculture and well-organized rural communities.

At its public opening exercises the school was welcomed to the Massachusetts Agricultural College by President K. L. Butterfield, and the granges of New England were represented by Rev. J. H. Hoyt. Dean A. C. True, of the graduate school, outlined briefly the objects for which the school was established, the reasons for the particular courses of instruction offered at the seventh session, and the intellectual and social advantages to be derived from the contact of instructors and students in such a school.

Dr. True pointed out that in our time—

education and research more and more involve the harmonious working together of groups of individuals who are willing to put away selfish ends for

the common good. In a vast country like our own with a population drawn from all quarters of the globe, and with an almost infinite variety of environmental conditions, associations of scholars and investigators from many different regions, whether their work deals with subjects remote from practical affairs or, as in the case of most of us, with matters of vital concern to great industries, is of great importance as an aid to that mutual understanding on which the life of our Nation and the perfecting of our civilization depend. For after all, as recent events in the world's history have shown, public opinion and governmental action depend more largely than is generally recognized on the modes of thought which are developed in the institutions of higher learning.

Such an organization as this graduate school, having behind it the associated universities and colleges represented in the Association of American Agricultural Colleges and Experiment Stations, may also be influential in shaping the ideals and standards of agricultural scholarship and research. If through our discussions here we are able to carry back to our respective institutions suggestions for the improvement of courses of instruction and methods of research and to stimulate faculties and students to more thorough work, we shall have made a valuable contribution to those influences which are to determine the success of the great movement to raise American agriculture and country life to the highest possible level.

Since the last session of our school this movement has made unusually rapid progress. The permanent national system of agricultural extension education, provided for in the Smith-Lever Act of 1914, has already become well organized and attained great dimensions. In over 1,200 counties, spread over the entire country, extension agents are regularly working. Supporting these local forces are about 1,500 extension specialists and administrative officers maintained by the State colleges and the Department of Agriculture. At least 1,000 teachers are giving instruction in agricultural subjects in our colleges, and the number of students in four-year courses of agriculture has risen from 14,000 in 1913 to 19,500 in 1915. The past year 4,900 secondary schools gave agricultural courses attended by 95,000 students, as compared with 1,400 schools and 30,000 students two years before. The force employed in our agricultural experiment stations has risen to 1,860 and the income of the stations in 1915 was $5,286,000. The force employed in the Department of Agriculture is over 16,000 and its income about $25,000,000.

The demand for thoroughly trained and efficient workers in agricultural lines, whether in research, education, or farm practice, has never before run so far beyond the supply. The responsibilities of the leaders in the agricultural movement have never been so heavy. Their encouragements have never been so great. This body of young men, who have already been trained in our higher institutions of learning and many of whom are already engaged in teaching or research, have before them exceptional opportunities for leadership and high success. The incentives to thorough preparation and the most strenuous endeavor are of the highest and broadest character. To discover nature's secrets and thereby advance science and human welfare, to inspire and instruct a vast multitude of men, women, and children in colleges, schools, and millions of homes, to lay a firm and safe foundation for the permanent existence and prosperity of the United States and in large measure of all the world—these are the appropriate tasks of agricultural scholars and scientists.

A week was devoted to discussions of the problems of education with special reference to the training of students along agricultural lines. Dr. W. C. Bagley, director of the school of education of the University of Illinois, gave five lectures on the foundations of peda-

gogy. He argued that not only knowledge but "skill" is a legitimate and important end of education, whether the subject taught is what is ordinarily called cultural, such as language and mathematics, or technical, as engineering and agriculture. The interrelations of technical and cultural aims in education were also dwelt upon. A clear and impartial résumé of the experimental researches on the disciplinary value of various studies was given, with the conclusion that the evidence thus far accumulated indicates that there is a certain disciplinary result which may be transferred from one study to another, but that this is not so large as has been commonly held by the friends of the old classical education.

Dean W. W. Charters, of the school of education of the University of Missouri, presented some of the principles on which methods of teaching should rest. He laid special stress on the principle that the normal mental process in learning is to work from problems toward their solution. A problem arising in the experience of the student or being presented to him by his teacher, the learner may become in large degree his own instructor, especially if the solution is of vital interest to him. The application of this principle would in many subjects result in economy of mental effort, increase of interest, and more permanent results. Good method should always culminate in elaborated and well-organized knowledge.

At the seminars the practices of teaching various agricultural subjects were presented by Dean R. L. Watts, of Pennsylvania State College, on vegetable gardening; Prof. C. G. Woodbury, of Purdue University, on pomology; Prof. C. A. Zavitz, of Ontario Agricultural College, on agronomy; and Prof. J. E. Rice, of Cornell University, on poultry husbandry, as well as by members of the Massachusetts College faculty and others. On Saturday a conference on the training of men for agricultural service was led by President H. J. Waters, of the Kansas Agricultural College, who dwelt on the nature and function of the college course in its adaptation to this end, and by Prof. G. A. Works, of Cornell University, who discussed the relation of the agricultural college to the preparation of teachers of agriculture in secondary schools.

The conference was followed by a round-table discussion by teachers of secondary agriculture on the value of the college courses in agricultural education as a means of preparation for teaching agriculture, this meeting being one of the series of conferences held during the past year through the cooperation of the United States Bureau of Education and the States Relations Service. During this educational week emphasis was often laid on the importance of training in the principles and methods of education for students intending to become teachers of agricultural subjects in colleges or schools.

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BULLETIN, 1918, No. 45

EDUCATIONAL SURVEYS

BY
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[Advance sheets from the Biennial Survey of Education in the United States, 1916–1918]

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EDUCATIONAL SURVEYS.[1]

By Edward Franklin Buchner,
Professor of Education, Johns Hopkins University.

Contents.—State surveys—County surveys—"Town" surveys—City surveys—Vocational education surveys—Higher educational institutions—Negro education—Foreign surveys—Miscellaneous—Unpublished surveys.

The educational survey has ceased to be a mere event or an occasional happening. It has been critically transformed into a permanent means of progress. Changes in the educational conditions of a given system are now to be expected not merely from the initiative and push within, but are actively sought for as the outcome of an objective and unbiased study of the situation. The establishment of standards based on current practices and the more exact definition of the relations which should obtain in the dynamics of educational support and organization, of teaching and learning, have made possible the increasing number of scientific approaches to the task of formulating qualitative and quantitative judgments concerning communities and their schools. The system of schools set up and maintained by a State, county, or city is a most important form of human behavior, and therefore worthy of the intensive study essentially characteristic of a survey. The synthetic judgment in which the study culminates, prophetic of vital readjustments to be made, is possible only to the survey whose scientific acumen is guided by a fertile imagination drawing from the now rich stores of ranks, standards, and measurements possessing both accuracy and applicability.

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[1] This chapter is the fourth report in the special series presenting a record of the educational-survey movement. In the report of the Commissioner of Education for the year ended June 30, 1914 (Ch. XXIV, vol. 1, pp. 513–562), and also June 30, 1915 (Ch. XVIII, vol. 1, pp. 433–492), appeared the first two reports of school surveys in the United States. The educational inquiries and surveys, the reports of which, with two exceptions, had been published up to the close of each of the two years, respectively, were analyzed with reference to the place and time, the authorization, the details of the staff, the situation leading to the inquiry, the method and scope, and the fundamental problems investigated, with a summary of the more important findings and the recommendations.

The third report, appearing in the report of the Commissioner of Education for the year ended June 30, 1916 (Ch. XXI, vol. 1, pp. 353–371), included those surveys of which the reports had been published during the year under review or were in process of publication, and listed those surveys the reports of which remained unpublished. This fourth report presents an account of the surveys which have been published during the biennum 1916–1918 or are in process of publication, listing those which may not be published.

The permanency of the survey as an American means of educational progress is clearly shown by the greatly increased number made during the biennium of 1916–1918, which this report reviews. Of the 157 surveys (including 7, the reports of which are unpublished) made during the past seven years, 73, or 47 per cent, were made during the last two years. The 147 published reports present the results of extensive, or special, studies of districts, in whole or in part, thus distributed: United States, 1; States, 18; counties and "towns," 40 (reporting on conditions obtaining in 67, 3 counties in one instance being "typical" of a State); cities, 59; higher institutions, 10 (covering 24 institutions); vocational, 13; and special, 6. The average number of surveys per year made during the entire period is 22. During the biennium the annual average is over 36. The 69 survey reports published (or in press) during these two years show in their distribution a steady widening of the field of application: State, 8; county and "town," 24 (reporting conditions prevailing in 49); city, 22; higher institutions, 5; vocational, 6; and special, 4.

The survey continues to extend its services in general, ranging from an almost complete reorganization of a system to the easing of a local "situation"; and in particular, such as showing the limitations of the school plant and furnishing a building program for several years to come, specifying costs of operation and instruction and revealing untouched financial resources, discovering the attainments of pupils in classes, buildings, and districts, and thus pointing out new functions in the field of supervision, extending more exact inquiry to include additional subjects as music, drawing, and school gardening, and formulating the teaching norms characteristic of a city, county, or State. The survey has more than "paid for itself" by showing that we can not cheapen education. It has become an effective means for the explanation and the preparation of a supporting community for the rapidly and inevitably increasing costs of public education (e. g., the bond issues of St. Louis, St. Paul, and Harrisburg). A most striking feature of the survey changes in the biennium is to be found in the adoption of some of its distinctive methods by superintendents, particularly of city schools, in their annual reports or special publications. This form of "auto" surveying at once disseminates in the community more accurate and intelligent information concerning schools, and places a new interpretation upon the meaning of educational administration in practice. Important increments to our scientific knowledge of educational processes and results are being made through the greater attention given to the measurement of the achievements of pupils by the inclusion of standard scales and tests. What can we tell about a school system having

exact information about this, that, or another trait, is a question the survey has enabled us to answer with increasing certainty. The duty of comprehending the educational survey is thus laid alike upon the public, both parent and taxpayer, the practitioner, and the student of education, for it has ceased to be a mere event or an occasional happening.

In connection with these general features and before taking up the details of survey activities during the biennium, it should be noted that a view of the special significance of the educational survey as a means of progress and of the activity of the Bureau of Education in forwarding this movement by extensive participation therein is set forth in the report of the Commissioner of Education for the year ended June 30, 1917 (Vol. I, Chap. II, pp. 19–44). It is important to observe how legitimately the educational survey has fitted in with the conditions of national progress as previsioned in the congressional legislation half a century ago. The Commissioner of Education thus calls attention to this situation, as a preface to the extended summaries of several important surveys conducted by the bureau which are included in this account of its varied activities during 1916–17:

> In its educational survey work the Bureau of Education is carrying out in the most direct manner possible the task contemplated in the original act [1867] creating the bureau. * * * It is precisely this function that the educational survey fulfills. * * * It is becoming more and more evident that the educational survey constitutes a type of service most appropriately rendered by the Federal Bureau of Education.

STATE SURVEYS.

Illinois.[1]—This survey presents most of the results of a State-wide survey growing out of a resolution passed by the Illinois State Teachers' Association in 1913. After a period of conferences and committee organization, it was decided to investigate "the children; the teachers; the program of studies; the school plant; finances; organization, administration, and supervision; the school and the community; conditions affecting vocational education; and the rural schools," with a special investigator in charge of each division. "It was not possible to present complete and detailed reports upon all of these topics, partly because the investigators were not free to secure the information at first hand and partly because of limited resources." "The committee was handicapped not only by a lack of funds, but by the failure of certain agencies to cooperate with the movement and by the unfriendly attitude of certain members of the

[1] Illinois School Survey: A Cooperative Investigation of School Conditions and School Efficiency, Initiated and Conducted by the Teachers of Illinois in the Interest of All the Children of All the People. By L. D. Coffman, director. 377 pp. Published by order of The Illinois State Teachers' Association, 1917.

teaching force." The method of securing information employed the questionnaire extensively, with the visitation of a total of 173 rural schools by three investigators.

The report of the Illinois school survey, accordingly, includes 11 reports on the following specific topics:

The economic status of teachers in Illinois, by L. D. Coffman.
Program of studies in town and city graded elementary schools, by W. C. Bagley.
The technique of superintendence, by L. D. Coffman.
School finances, by David Felmley.
Student population and related problems in high schools, by J. A. Clement.
Spelling scores for 54 Illinois cities, by J. F. Bobbitt.
Arithmetic scores in seven Illinois cities, by J. F. Bobbitt.
Some exceptional high-school pupils in Illinois, by E. E. Jones.
The rural schools: Reports by Caroline Grote, Edgar Packard, and Joseph H. Hill.

Alabama.—The 1915 session of the Legislature of Alabama authorized the submission to the qualified electors of the State, to be held in November, 1916, of an amendment to the constitution permitting the several counties in the several districts of any county to levy and collect a special tax not exceeding 30 cents on each $100 worth of taxable property for school purposes. The department of education of the State, accordingly, undertook a special study of educational conditions which would enable the voters to act in the light of knowledge when voting upon the proposed amendment. It issued in July, 1916, "A Comparative Study of the Public School Systems in Alabama and Other Typical States and an Exhibition of Educational Conditions in the 67 Counties of Alabama." (Bulletin No. 55, 32 pp.) The States chosen for comparative purposes included Florida, Georgia, Massachusetts, Mississippi, Ohio, Tennessee, and Washington, the data being derived from the report of the Commissioner of Education for 1914. The study of conditions in the several counties in the State related only to whites, including both rural and city districts. The special topics presented include: Children in school and out; length of school year and average attendance; average annual expenditure per pupil enrolled; teachers and teachers' salaries; average number of pupils per teacher; grades of certificates; investment in school plant; and illiteracy in Alabama. The entire material of the bulletin is organized after the pattern of "A Comparative Study of Public School Systems in the 48 States," issued by the Russell Sage Foundation in 1912.

Colorado.—The "Report of an Inquiry into the Administration and Support of the Colorado School System made under the Direction of the United States Commissioner of Education" was issued as Bulletin, 1917, No. 5 (93 pp., 48 tables). The scope of this study,

which was made upon the request of the Colorado State Survey Committee, "was confined to an investigation of the administration and support of public elementary and secondary schools and their immediate effects upon conditions determining the character of work done in these schools." The inquiry was made by A. C. Monahan and Katherine M. Cook, both of the Bureau of Education, who were in the State during a considerable time in the months of September, October, and November, 1916. The detailed topics taken into consideration include the State of Colorado and its educational system, general administration, revenue and support, and the administration of school instruction. Chapter II presents a summary of the 25 recommendations made to meet "Colorado's greatest need in public education" which was found to be "a type of centralized organization, now wholly lacking, which would furnish the leadership and guidance necessary to insure State-wide progress."

Arizona.—Because of its recent admission to statehood and the formative stage through which its educational development is passing, especial interest attaches to the study of "Educational Conditions in Arizona: Report of a Survey by the United States Bureau of Education," and issued as Bulletin, 1917, No. 44 (196 pp., 86 tables, and 15 plates). The inauguration of the movement leading to the survey was made by the Arizona School Officials' Association early in 1915. Toward the close of this year, the State superintendent of public instruction requested the Bureau of Education to conduct the survey, which was begun in the autumn of 1916. The members of the bureau assigned to the study included A. C. Monahan, J. C. Muerman, Katherine M. Cook, W. S. Deffenbaugh, F. B. Dresslar, H. W. Foght, and Samuel P. Capen. The study made of the State university was assisted by Livingston Farrand. In addition, assistance was rendered by State and educational officers, and questionnaire returns from 81 per cent of the teachers and several hundred other citizens in the State.

The topics presented in the report include the State of Arizona and its educational system, the status of elementary and secondary education, the State normal school and the department of education in the State university. Chapter II, which deals with secondary and elementary education, comprises about two-thirds of the report and presents considerations of State administration, county and district administration, revenue and support, urban school districts, high schools, elementary school attendance, and instruction. The problems involved in the supply of teachers were the chief feature of the study made of the State normal school and the department of education in the State university.

The 10 groups of recommendations for the improvement of educational conditions in the State are:

1. Centralization of the State school system, placing the responsibility of the administration of the public-school system definitely upon the State board of education and the State department of education working in cooperation with the county boards of education and school-district trustees.
2. Reorganization of the State board of education, conferring upon it enlarged powers.
3. Provision for a nonpolitical State superintendent who shall be the head of an enlarged and more effective State department of education.
4. Provision for county control of county school funds through county boards of education and nonpolitical county superintendents.
5. Reorganization of the method of apportioning State funds on a basis which recognizes county and local effort.
6. Requirement of a higher standard of general and professional education for teachers, a revision of the method of certification, establishment of a certification division in the State department of education, which shall be also a teachers' employment bureau.
7. Means to encourage the erection of suitable school buildings and to prevent the erection of undesirable ones.
8. Rearranged course of study especially to meet the conditions in the one-teacher schools.
9. Provision for expert supervision of rural schools.
10. Reorganization of the method of handling State textbooks to prevent unnecessary losses.

South Dakota.—A complete scheme for the reorganization of the system of public education in South Dakota, in order to bring its administration into conformity with the best current practice, to secure a more effective unification of the schools and higher institutions, and to eliminate various disturbing political factors, is presented in the recommendations of the report made by the State educational survey commission announced in June, 1918. The commission was appointed by the governor in accordance with the act of the legislature in 1917, appropriation having been made to meet the expenses of the study. The inquiry was conducted under the direction of the Commissioner of Education, the field work and preparation of the report being in charge of Harold W. Foght.

The report, which will be published as a bulletin by the Bureau of Education, includes these topics: The topography of South Dakota; economic conditions; the kind of schools best adapted to an agricultural people; the present system of education; rural elementary and high schools; town and city elementary and high schools; State, county, and rural school organization and administration; supervision of city, town, and county schools; the preparation and certification of teachers, and teacher training in the several public and denominational institutions; the State university; the State college of agriculture; the State school of mines.

Chapter XXI presents a summary of the most important legislative and administrative recommendations offered, among which are the following: (1) Constitutional amendments enlarging the powers and duties of the present State board of regents so as to unify the system and to secure the election by this board of the State superintendent of public instruction; (2) reorganization of rural schools so as to reduce to a minimum the number of one-teacher schools and to increase the number of consolidated and rural high schools, to secure enlarged school plants, homes for teachers, and a more permanent staff of teachers receiving more adequate salaries, and, to readjust the school year in conformity with the growing season and the occupational interests of communities; (3) reorganization of school districts outside of present independent town and city districts into the county-unit system, with county boards of education having specified powers and duties, including levying a uniform county school tax and equalizing educational advantages among all school children in the county; (4) the provision, new for South Dakota, for a State school tax amounting to about one-third of the total school maintenance, and also a permanent millage tax for the support of the higher institutions in lieu of present legislative appropriations; (5) the improvement of teachers' qualifications and teaching conditions.

Iowa.—The novel attempt to discover and formulate State norms in the attainments in certain subjects by children under instruction in public schools is exemplified by the two following monographs: "Handwriting of Iowa School Children," by Ernest J. Ashbaugh, University of Iowa, Extension Division Bulletin No. 15, March 1, 1916 (24 pp., 10 tables, 6 figs., 4 graphs); and "The Arithmetical Skill of Iowa School Children," by Ernest J. Ashbaugh, University of Iowa, Extension Division Bulletin No. 24, November 1, 1916 (63 pp., 17 tables, 31 figs.).

The first study attempts to answer these questions:

1. How well do Iowa school children write?
2. Do children improve their quality of writing regularly as they progress through the grades?
3. Do children attending school in towns and cities write better than those attending the rural schools?
4. Do the children in the larger cities write better than those in towns or small cities?
5. How do children in this State compare with children in other States?
6. Is the quality of writing of the average eighth-grade child sufficient to satisfy the ordinary demands of everyday life outside of school?

The data on basis of which the answers could be formulated were secured during the school year 1914–15, being a total of 28,000 papers received from 110 cities and towns and from rural schools in 14 coun-

ties. The scoring of the papers was based on Ayres's measuring scale for handwriting. In general, it was found that, "on the average, Iowa children are writing as well as children of like grade elsewhere in the United States and at a greater speed, with the exception of the eighth grade, which is only a little slower."

The second study attempts to secure answers to these questions:

1. How skillful are Iowa school children in performing the four fundamental operations in arithmetic?
2. How does the skill of Iowa school children compare with that of children of like grade in other States?
3. How does the skill of children in small towns compare with that of children in larger towns and cities?
4. What use can be made of standard tests?

The data were secured by the extension division of the university, through whom arrangements were made for the giving of the Courtis Series B tests during the last two weeks of the school year 1915–16. Papers were secured from about 13,000 pupils in 52 cities and towns, the teachers checking the papers and recording the number of "attempts" and "rights." Class-record sheets, which were accepted as accurate, were then handled by the extension division in order to secure the information sought by the four questions. It was found that the speed is greater in the lower grades than in the upper, and the accuracy may be improved in most grades, especially in addition and multiplication. In comparison with the children of Indiana, Kansas, and Minnesota and the Courtis general scores, Iowa children excel in most grades and operations. The study seems to throw "some light on the justice of the criticism" which specifies the inaccuracy in arithmetical ability on the part of children who complete the common-school course.

In "Vocational Guidance in Music," by Carl E. Seashore (University of Iowa Monographs, First Series No. 2, September, 1916, 11 pp.), announcement is made of the provision in the psychology of music studio for the conduct of music surveys in the public schools. This development of grade tests in music for vocational guidance represents additional equipment for school survey purposes.

Wisconsin.—A contribution toward the improvement of teaching in public schools, as well as the formulation of a measure of the success of the instruction given and representative of the practices characteristic of the State, is presented in "A Report on the Use of Some Standard Tests for 1916–17," by W. W. Theisen, and issued by C. P. Cary (Studies in Educational Measurements in Wisconsin, Bulletin No. 1, 1918, Madison, pp. 120, 45 tables and 9 figures).

These "tentative Wisconsin standards of achievements" in spelling, arithmetic, handwriting, composition, and reading were derived from an extended plan of cooperative research, aided by members

of the State department of education, city and county superintendents and teachers, under the direction of the State supervisor of educational measurements. In addition to the pupils' work, the study sought by questionnaires certain facts as to the course of study and organization of instruction in the subjects tested in order to find possible correlative explanations of the results obtained in some of the tests.

The spelling of 36,564 pupils in rural, "State graded," and high and city schools was tested by the Ayres scale, and found "to be from one-half year to a full year behind" its standards, city pupils falling below the others. The attainments in the four fundamental operations in arithmetic of varying numbers of the third to eighth grade pupils in a total of 21 cities were measured by the Woody test series A, and proved to be up to standard in the three lower grades, but below in the three upper grades. The handwriting of 7,231 children in rural, graded, and city schools, second to eighth grades, was scored in quality by the Thorndike scale, and compared, also, through conversion by Kelly's method, with Freeman's and the Iowa standards, and shown to fall below them, excepting that the best Wisconsin handwriting both in quality and speed appears to be in the rural schools. The Hillegas scale and the Nassau County supplement to the Hillegas scale were used in the effort to secure a representative State measurement of the results in English composition of 5,848 children of the third to eleventh grades in 15 cities, and revealed that "the children as a whole in these Wisconsin cities do not make a commendable showing." Results in the reading of 7,549 children, tested by the Kansas silent reading test, as reported by 18 cities, two cities including scores made by high-school pupils, show Wisconsin children to be below the standard performances in the third and fourth grades, and above in the fifth to eighth grades.

COUNTY SURVEYS.

Georgia.—What may be designated as the Georgia method of county school survey, illustrated in the material of former reports, continues to be applied during the biennium by M. L. Duggan, rural school agent, acting under the direction of the State department of education. The present list includes:

No. 11. Tattnall County, 1916. No. 12. Screven County, 1916. No. 15. Brooks County, 1917. No. 16. Hart County, 1917. No. 18. Spalding County, 1917. No. 19. Towns County, 1917. No. 20. Jones County, 1918. No. 22. Candler County, 1918. No. 23. Tift County, 1918. No. 24. Ben Hill County, 1918.

By noticing the different existing features placed under the several rubrics used in describing existing conditions, one can see the several lines of change and improvement which are appearing in rural sec-

tions in this State from year to year. For example, No. 11 specifies that "moonlight" schools or "no moonlight" classes are organized. No. 15 notes as a new feature "clubs" or "no clubs," such as canning, corn, pig, and poultry, organized. Nos. 16 and 18 emphasize the contrast in outlays for schools as compared with courthouses and jails, and urges a wider extension of a county tax levy and a district tax levy. No. 19 lists the rubrics by means of which one may score a school as standard. No. 22 shows the importance of compulsory attendance, and No. 23, the advent of "the school pig."

A most interesting application of the "survey" type of handling official statistical data in the training given to prospective teachers may be found in "A Brief Social and Economic Survey of Muscogee County," by Ella Jones, and published by the Georgia Club as a bulletin of the State normal school, Athens, Ga., June, 1917 (14 pp.), and "A Brief Social and Economic Survey of Floyd County," by Estelle Hughes, September, 1917 (15 pp.). Similar studies have been made of Clarke, Putnam, and Webster Counties by students at the normal school under the direction of Prof. F. A. Merrill.

Indiana.—That survey reports may serve two forms of educational service is illustrated in the "Educational Survey of Greene County, Ind.," by Supt. Daniel C. McIntosh, published in June, 1916, (110 pp.). "To present the facts, just as they were at the time of the investigation (1913–1916), so they may be understood by everyone, and then to make some practical suggestions to better conditions," were the main objects of this study. The report was also submitted in partial fulfillment of the requirements for the degree of master of arts in the school of education, Indiana University. The material was collected by the county superintendent, with the aid of teachers and principals in the performance of their respective duties, and is arranged in 10 chapters, 29 tables, and 26 figures. The details include: The location and history of the county; the topography, resources, and transportation; the economic, social, and religious conditions; the history, organization, and administration of schools; the physical plant; the teachers; the pupils; programs and curriculum; financial; summary and recommendations. The appendix includes the blanks which were employed in collecting the data and a brief outline of the survey of a rural county.

Texas.—"A Study of Rural Schools in Travis County, Tex.," by E. E. Davis, of the University of Texas, department of extension, division of school interests (Bulletin of the University of Texas, 1916, No. 67, 53 pp.), is also a study that served a double purpose, namely, "to make an accurate and scientific estimate of public education" in a part of Travis County, and to be a chapter of a thesis offered in connection with the requirements for the degree of master of arts

in the University of Texas. The scope of the material includes: Economic and social conditions; finances; grounds, buildings, and equipment; course of study; teachers; pupils; conclusions and recommendations. In dealing with the course of study use was made of a number of tests for measuring the achievements of pupils, such as Ayres's scale in handwriting, Thorndike's reading scale, Courtis's series B, for speed and accuracy in arithmetic, and Starch's reasoning tests, scale A, in arithmetic. An attempt was made to use Ballou's scale for measuring English composition, but, owing to certain difficulties, the plan was not executed.

In February, 1917, a "Survey of the Public Schools of Walker County, Tex.," was made by the United States Bureau of Education. It made special study of the academic education and professional training of the teachers, their certificates and tenure of position; salaries; grades taught; school grounds; buildings and equipment; water, toilets, lighting; length of term. A summary of the main findings appeared in the "Texas School Journal," March, 1918, (pp. 13–15).

Missouri.—"A Sanitary Survey of the Rural Schools of Northeast Missouri," by Prof. Willis J. Bray, was published in "The Rural School Messenger," November, 1917 (pp. 47–80). The data in this report were obtained by the tabulation of the answers to more than 100,000 questions.

These answers were from representative rural schools in each of the 26 counties in this section of Missouri. These questions called for a simple statement of fact and not, with one single exception, for an expression of opinion. The answers obtained can be relied upon as an exact statement of facts in almost every case.

The scope of inquiry included school grounds, school buildings, and schoolrooms, health conditions of children, dental inspection, adenoids, eye defects, hearing, malnutrition, speech defects, water supply, heating of schoolrooms, disposal of dust and dirt, infectious diseases, and disposal of sewage. "The data when received were tabulated by counties, and the totals under each item obtained by adding corresponding items from all the counties."

New York.—The "Report of the Survey of Public Education in Nassau County, N. Y.," conducted in 1916, has been published as a University of the State of New York bulletin, No. 652, December 1, 1917 (287 pp., 112 tables, and 16 figures). It comprises two parts, the first of which is the report of the survey conducted by L. S. Hawkins, of the New York State department of education, and George D. Strayer, of Teachers' College, with the assistance of M. R. Trabue, who had charge of the direction of the field work and the compilation and report of the findings. The second part includes the report of the survey conducted by A. C. Monahan, J. C.

Muerman, Katherine M. Cook, and Belvia E. Cuzzort, representing the United States Bureau of Education. The first part devotes its attention largely but not exclusively to the five towns or superintendent districts; the second part to "practically all the farming territory in the county and all the small villages." The survey reveals extraordinary conditions, which are to be understood in light of the fact that the plan of school administration was "inaugurated over a hundred years ago" and has been essentially outgrown. Accordingly the survey suggests the basic need of a single county organization. In the attempt to measure school conditions and achievements of pupils use is made of more recently established forms of measurement. The school plant is estimated by means of Strayer's score card for city school buildings. About one-fourth of the report (pp. 146–217 and pp. 279–287) is given to the measurement of the achievements of pupils, including English composition (Hillegas), reading scale alpha (Thorndike), completion test, language scales C and L (Trabue), arithmetic (Woody, Courtis, series B, Stone's reasoning), penmanship (Thorndike), and spelling (Ayres). In accounting for the low achievements in fundamental subjects the survey believes that the causes "are not probably to be found in any lack of mental ability or willingness to work on the part of teachers or supervisors. The blame must be put, not on individuals, but on an old worn-out system of school administration and supervision." The inquiry into the achievements of pupils led to the development of the "Nassau County Supplement to the Hillegas Scale for Measuring the Quality of English Compositions" (pp. 160–162).

By means of this scale, which is somewhat more easily used by teachers than the Hillegas scale, teachers may check up with one another two or three times each year and know how their pupils compare with pupils of the same grade and age in neighboring schools. The county supervisors recommended by this report will be able, by means of this scale, to make comparisons between schools in the county and between the Nassau County school system and other school systems wherever it seems necessary. The median results obtained by using this supplement are exactly comparable to the median results obtained by using the Hillegas scale itself.

"TOWN" SURVEYS.

Connecticut.—In order to improve local school conditions and to better the administration of public education, the State board of education of Connecticut instituted in 1916 an "educational inquiry" in the several "towns" of the State which were under State supervision and received State grants. The surveys of the schools were

made by agents of the board of education, by personal inspections, aided, where possible, by the cooperation of school committees, superintendents, and citizens. The published reports of these inquiries include the following: "Glastonbury, 1916," by N. Searle Light (pp. 37, Connecticut Bulletin 29); "Seymour, 1916," by N. S. Light and E. W. Ireland (pp. 26, Bulletin 30); "North Stonington, May, 1916," by G. C. Swift (pp. 29, Bulletin 32); "East Windsor, May, 1916," by N. S. Light (pp. 34, Bulletin 45); "New Hartford, 1916," by E. Ward Ireland (pp. 33, Bulletin 30, Series 1917–18); "Kent, 1916–17," by E. Ward Ireland (pp. 33, Bulletin 56, Series 1917–18).

The scope of these inquiries usually included: The early history of the town and the beginnings of school activity; location, topography, and resources; the town's finances and school revenues and expenditures; population analysis; the school population, attendance, classification, and progress of pupils; school buildings, equipment, and grounds; teachers; instruction, observed or tested; administration and supervision. The conditions varying in these towns, a uniform scheme of inspection and testing could not be applied. Conditions were reported as found. "A system of control which makes possible a janitor's striking and cursing the superintendent of schools in the presence of pupils is abominable. And this incident on a day of visitation by the writer has not been the only occurrence of a similar nature" (Glastonbury). The indifference of the school committee to school conditions, and a failure during four months to secure a public meeting or conference led to the adoption of the novel plan of sending within one month a series of seven postals to the voters of the town setting forth the main findings in the form of questions. "The people were entitled to the facts" (East Windsor). Tests of the results of instruction were devised in arithmetic, language, spelling, geography (location), and history (dates) and given in Seymour, New Hartford, and Kent, the results being exhibited in the appendices.

CITY SURVEYS.

Boston, Mass.—The greatly increased cost of public education in Boston has led to two surveys of the city's school sytem. The main features of the first survey, 1911, were stated in the report of the Commissioner of Education (Chap. XXIV, Vol. I, 1914, pp. 521–523). In 1915 the finance commission was requested by the mayor of the city to investigate the great increase in school expenses. "With the appropriation of $5,000 in hand, the finance commission decided to supplement the report of 1911 with an investigation by an educational expert." This inquiry extended from October 1, 1915, to January 22, 1916, the results appearing in the "Report of a Study of Certain Phases of the Public School System of Boston, Mass., made

under the auspices of the Boston Finance Commission," City of Boston, Document 87, 1916 (219 pp., 9 chapters, 16 tables, 12 diagrams). A second document, "Report on the Boston School Department with Especial Emphasis on the need for a Reorganization of its Central Administrative System" (66 pp.), contains a review of the report of the survey committee (pp. 6–49), and a review of the assistant superintendents' "reply" (pp. 50–61).

The personnel of the survey committee, with their special topics of study, included James H. Van Sickle, director of the study and chairman of the committee; George D. Strayer, administrative offices and supervision districts; Lewis H. Carris and Egbert E. MacNary, prevocational and vocational features of the schools; Edwin Hebden, vocational needs of Boston children; Leonard P. Ayres, the construction of school buildings; Earle Clark, general study of costs; Don C. Bliss, the organization of supervision and the work of special classes; Henry S. West, the high school situation. "Though the director holds himself individually responsible for each and every part of what is here presented the report represents the combined judgment of all who participated in the study."

The report does not present itself as "a complete survey" of the schools of the city, inasmuch as the scope of the study was restricted to those phases of the system "having to do chiefly with organization and costs," specified as follows: Cost of administration of the school system, with the various duties of the administrative officers; the organization of high and grammar school districts and the arrangement of duties of principals; the proper number of pupils to a teacher; the lengthening of the school year; the elimination of extra pay to teachers for service in vacation schools; the shortening of the common school course from eight to seven years; the value of the new schools and studies established since 1911; method of paying salaries to teachers; whether or not the system of furnishing additional school accommodations is being carefully and economically planned. The director observes that a complete survey would include many additional topics, among which are:

1. The relation of the courses of study to individual differences existing among children and to modern social demands.
2. The quality of teaching.
3. The achievements of pupils.
4. The adequacy of present provision for physical welfare of children, prevocational and vocational training, special classes, playgrounds.
5. The possibility of improving the present system of recording and reporting school facts, including the consideration of the question of clerks in elementary and in high schools.
6. An industrial-commercial survey.
7. The classification of children in the school system, including a study of retardation, elimination, and progress of children, together with a consideration of promotion rates, failures by studies, and the like.

8. A study of the distribution of expenditures among the several units of the school system for the sake of discovering any further possibility of saving without a decrease in the efficiency of the school system.

9. An investigation of the adequacy of the present school plant, with special reference to the effect of such accommodations or equipment upon the health and achievement of school children.

10. An inquiry concerning teachers, including the recruiting of the corps, their salaries, tenure, improvement in service, and the like.

11. A study of the present efficiency of general and special supervision, with particular reference to the contribution made by the supervisory corps to the growth and development of teachers.

12. The care of school buildings, including the qualifications, compensation, and control of janitors.

13. Apparatus and materials for the purposes of training and instruction (textbooks, laboratories, workshops, libraries, schoolroom decorations, etc.).

14. The legal basis of the school system. The relation of the school department to other departments of the city government and to the State legislature.

The discussions and findings of the study are presented in nine chapters dealing with the reorganization of the administration of schools; reorganization of district supervision; the high-school situation; special departments, including practice and training, promotion and research, physical welfare, industrial arts and household arts, evening and voluntary continuation schools, community centers, music, and kindergartens; vocational education; vocational needs of Boston children; expenditures for school purposes in Boston compared with expenditures in (22) other large American cities; the construction of school buildings; subsidiary matters. Among the recommendations which, in the summary, fill nine pages (pp. 6–14), the following may be mentioned: Reorganizing the administration so as to secure a responsible executive head, who should be superintendent of schools; a more adequate plan of supervision by redistricting the areas and taking account of the relationship between the number of pupils in average daily attendance and the number of masters employed; the general organization of junior high schools so as to extend their advantages to all parts of the city and at the same time reduce school costs; the 15 special departments should be regrouped into 10; the prevocational departments should be reorganized as a part of the junior high schools; while Boston ranks second among the 21 cities in expenditure per inhabitant for operation and maintenance of schools, the expenditure per unit of wealth is relatively low; the city's plan of erecting school buildings through the agency of an independent schoolhouse commission has not been successful from the standpoint of cost.

San Francisco, Cal.—The detailed character of the study of the school system of San Francisco is unmistakably indicated by the 23 pages (pp. 621–644) required to present the brief digest of the important recommendations which are made in connection with the dis-

cussion of the several topics taken into consideration. The presuppositions which serve as a preamble to this summary could well serve as the foreword to the survey of every public-school system in order to bring together school officials, citizens, and surveyors upon a common platform from which to view with like-mindedness all findings and recommendations.

On January 3, 1916, the Commissioner of Education undertook the organization of the survey which had been proposed as early as December, 1914, by representatives of the San Francisco Chamber of Commerce, and with which the San Francisco board of education cooperated. The Bureau of Education furnished the services of five specialists and the board of education seven members of the commission, who were nominated by the Bureau of Education from a list approved by the board of education. The commission, as finally made up, and the topics to which each member was assigned, are as follows: William T. Bawden, director of field work for the survey commission, manual training, vocational education; Henrietta W. Calvin, home economics; Fletcher B. Dresslar, school architecture, sanitation, buildings, and equipment; Arthur W. Dunn, civic education; John L. Randall, school and home gardening; Frederick E. Farrington, education for immigrants; William M. Davidson, organization, administration, financial and fiscal problems; Charles A. McMurry, elementary schools, courses of study, methods of teaching; John W. Withers, elementary schools, courses of study, methods of teaching; J. Stanley Brown, secondary education; Henry Turner Bailey, fine arts; Will Earhart, music.

The amount of time spent in the field included the month of February by eight members and the month of August, after the opening of the new school year, by four members, aggregating a total of 347 days in San Francisco. Every elementary school, every high school, and 16 evening schools were visited. One hundred and thirty-nine conferences were held with groups of teachers and principals. The expense of the survey was estimated at $8,500. The report is contained in "The Public School System of San Francisco, Cal. A Report to the San Francisco Board of Education of a Survey made under the Direction of the United States Commissioner of Education," Bulletin, 1917, No. 46 (644 pp., 221 tables, 76 figures).

The scope of the survey is readily seen from the following topics, to each of which a separate chapter is devoted: The city of San Francisco; a statistical study of the school system; organization and administration; the finances of the school; school buildings and grounds; the elementary schools; tests of the achievements of pupils; the high schools; civic education; music in the public schools; instruction in art; home economics education; manual training; vocational education; education of the immigrant; educational and eco-

nomic value of school-directed gardening. A striking feature of this survey is the new and special subjects which are included, indicative of conditions which are peculiar to the western section of the United States, particularly on the Pacific Coast. The ninth, tenth, fifteenth, and sixteenth topics touch upon these specific conditions.

The tests of the achievements of pupils were made in the subjects of penmanship, spelling, reading, and arithmetic, the preparation of the report on the results in each, respectively, being made under the direction of Frank N. Freeman, L. D. Coffman, N. L. Garrison, and Carter Alexander. So far as form is concerned, the writing of the children was found to be good; in spelling the city as a whole ranks considerably above the standard average for a large number of cities; in arithemtic, the children made an unusually good showing in speed, but not in accuracy, and did not evidence the usual increase in this quality with progress through the grades. Instruction in reading stands in need of standardization so as to insure grade to grade progress and greater uniformity in school situations, and thus to facilitate transfer and promotion of students. The intensive study of the 13 and 14 year old pupils in 11 elementary schools, selected at random and prepared under the direction of F. J. Kelly, in the interests of the development of a program for vocational education, indicates a new mode of attack upon the problems in this field.

Grand Rapids, Mich.—One of the most searching studies of a school system, that has yet been made, is to be found in the report of the "School Survey of Grand Rapids, Mich., 1916" (506 pp., 17 chapters, 112 tables, 94 diagrams). The survey was originally planned by the board of education to study the efficiency of instruction. As the results of the study of the instructional problems were obtained, it became apparent that this system was securing a distinctive type of results which doubtless involved high cost, and, accordingly, the scope was extended to include a comparative study of the costs.

The following, including Charles H. Judd, comprised the survey staff and the topics to which they were assigned:

Charles S. Berry, special classes; John F. Bobbitt, elementary school curriculum and school buildings; George S. Counts, arithmetic; John B. Cragun, music; Calvin O. Davis, high schools; John H. Francis, junior high schools; Frank N. Freeman, writing; William S. Gray, reading; Benjamin F. Pittenger, statistical material (in part) on teachers and promotions; Harold O. Rugg, school finances; and Matthew H. Willing, English composition.

Dr. Judd organized the staff, edited the results, and contributed the portions of the report not otherwise indicated above.

The report comprises the following topics in chapter order: The teachers; nonpromotions and failures in the elementary schools; introduction to tests; reading; composition; arithmetic; penmanship; music; instruction in the elementary schools; introduction to high-school report; secondary schools; special classes of the public schools of Grand Rapids; buildings and equipment; the cost of public education in Grand Rapids; the business management of the public schools; administrative organization. The final chapter presents a summary of the entire report (pp. 484–506).

In addition to the results secured in the application of the standard tests which were used to discover the ability of children in each of the school subjects studied, the survey is conspicuous by reason of its specification of the functions of supervision in the development of instruction. Detailed analyses of grade progress in the several subjects are so presented as to indicate both to principals of buildings and to supervisors how the checking up of the results of teaching can be carried forward diagnostically both in particular buildings and in particular grades.

The report in general shows that there is a very satisfactory condition of progress in the Grand Rapids school system. Instruction is of a high order, and the results are relatively superior. The detailed recommendations, which have been outlined in this summary, and are presented in full in the report, would make for an improvement of a school system already well organized and carrying on its work in a very adequate fashion.

Special mention may be made of the use of a new composition scale which is derived from material gathered in a similar test in Denver, Colo. It is interesting to note that, as in the San Francisco survey, music is made a subject of study in the Grand Rapids survey. A new type of foreign language courses is suggested for the junior high school. Emphasis is placed upon the recommendation that advanced courses in the senior high school should be given a "practical or functioning trend." The extended analysis of the data relating to high-school teachers sets a new degree of attainment in survey methods. The discussion of the study of the problem of the cost is clarified by the preliminary definition of the 10 different terms used in this report. Grand Rapids is compared with 18 cities in the items of expense.

St. Louis, Mo.—One of the largest and most carefully planned public-school surveys which has been conducted during the biennium is that of the public schools of St. Louis. This survey "was organized by the board of education for the purpose of securing a definite body of facts on which to base its financial policy and with which to persuade the citizens of St. Louis of the wisdom of this policy," and was conducted "primarily to aid in the passage of a bond issue of

$3,000,000." The survey was authorized by the board of education on May 11, 1916. The survey of instruction was, accordingly, undertaken and completed during the closing weeks of the school year 1915–16. The final reports of the different sections of the survey were filed with the board in August and September, 1916. The cost of the survey was $9,780.06, exclusive of the printing of the reports. The survey was published December, 1917.

The organization of the work of the survey included: (1) General organization of school system; (2) records, observations, and tests of schools, elementary schools, including nonpromotions and promotions, observations of instruction, the course of study, reading, arithmetic, and handwriting, special schools, and high schools; (3) administration: supervisory organization, including music, drawing, and physical education; divisions of administration, including attendance department, department of hygiene, and appointment of teachers and teacher training; (4) building: construction, hygiene, use of buildings for classes; (5) finance.

The respective assignments of the members of the staff to the above topics are indicated in the following list of the reports, which, for purposes of publication, were grouped in seven volumes.

Vol. I. Part 1. General statement.....Charles H. Judd.
Part 2. Administration and organization.....H. C. Morrison.
Part 3. Appointment of teachers and teacher training.....Charles H. Judd.
Vol. II. Part 1. Nonpromotions and two-quarter promotions in the elementary schools.....Charles H. Judd.
Part 2. Observations of elementary school instruction.....George A. Mirick.
Part 3. The curriculum situation.....J. F. Bobbitt.
Part 4. Reading.....William S. Gray.
Part 5. Arithmetic.....Charles H. Judd.
Part 6. Handwriting.....Frank N. Freeman.
Part 7. Special schools.....Walter F. Dearborn.
Vol. III. High schools.....A. B. Meredith.
Vol. IV. Finances.....H. O. Rugg.
Part 1. Public school costs in St. Louis.
Part 2. The business management of the public schools.
Vol. V. Part 1. Construction of school buildings.....W. R. McCornack.
Part 2. Hygiene of school buildings.....F. B. Dresslar.
Part 3. The use of elementary and high-school classrooms.....S. O. Hartwell.
Vol. VI. Part 1. Music.....J. Beach Cragun.
Part 2. Drawing.....F. H. Daniels.
Part 3. Physical education.....George W. Ehler.

(Volume VI is not published, and it is expected will not be.)

Vol. VII. Part 1. Child accounting and attendance.....H. C. Morrison.
Part 2. Medical inspection.....E. A. Peterson.

The splendid record which the St. Louis schools had been making through a long period of years gives reason for special interest and satisfaction in the results of this survey. One of our leading school systems thus has its enviable record confirmed when brought to the test of present scientific standards of measurement. The scope of the inquiry is readily gathered from the extended general statement of the findings and recommendations in Volume I (pp. 5–46).

Perhaps the most distinctive and valuable point emphasized in the St. Louis survey is the close connection between the erection of school buildings and the educational policy of a system stated in terms of the course of study and teaching activity. This identification of interests appears again and again in the course of the report and is summarized in the following statement of the director:

> The fact is that a school building is in a very important sense of the word a concrete embodiment of the whole school policy. When one thinks of a school building, therefore, he must think of it in terms of the plans which the school administration has for the use of this building. For example, if a school building contains a gymnasium and a swimming pool, it is perfectly evident that the administrative officers who put the gymnasium and the swimming pool into the building contemplate using it as a part of the regular educational equipment. They will by their policy of construction be called upon immediately to provide the time and instruction necessary to use this material equipment. The moment they begin to try to provide time for the use of the swimming pool, they will raise a number of questions with regard to the relative importance of swimming as contrasted with arithmetic and reading. The swimming pool, therefore, comes to be a part of every consideration of the course of study. What has been said with regard to the swimming pool could be said with regard to all of the other characteristics of the building.
>
> The school system becomes aware of lack of proper building equipments long before the citizens in general become aware of the fact that the course of study and the general policy of the school system are being invaded. It is inevitable, of course, if there is a lack of funds, that the school organization will ultimately be cramped because of this inability to enlarge the work of the schools. But the ordinary citizen is not likely to realize that the lack of funds means a reduction in the richness of the course of study and a deterioration of instruction.

Gary, Ind.—The advancement of educational science and the promotion of administrative practices in controlling the school experiences of children, as reflected in opinion, on one hand, and, as known by deliberate comparative judgments and exact measurements, on the other, have shared in a rare good fortune during the biennium. No experiment in public education in the United States has more quickly or widely influenced the formulation of opinions, and likewise carried conviction within an increasing group of official minds elsewhere than the undertakings and apparent novelties at Gary, Ind. The impression made upon many a visitor by its demonstrations of what can be done for children, if not what children can do for themselves, under the study-play-work program led to efforts

to reproduce its obvious features more or less formally in other systems. Indeed, so plainly had some of its leading issues involved been controverted that it was impossible to poll citizens by the question: Are you in favor of "garyizing" our schools?

In view of what "Gary" had become in American public education the most important survey of the biennium is that of its schools. The value of the survey as an instrument for the measurement and the interpretation of educational progress has had no more fortunate opportunity for revelation than in this study. The comparative merits of the traditional methods as over against the surveying methods of estimating the basic worth of contributions to both administrative and instructional experiments may now be exhibited by the critical student more accurately than ever before. Our educational enlightenment has been exceptionally advanced by the report of the study of the Gary schools which was undertaken in 1917 by the General Education Board at the request of the board of education and the city superintendent of Gary. The report, "The Gary Public Schools," New York, 1918 (over 1300 pages), comprises seven parts "dealing with the more characteristic or important aspects of school work at Gary," preceeded by a general volume, "The Gary School: A General Account," which summarizes the separate reports and presents "a comprehensive view of the entire situation:"

Part 1. A General Account. Abraham Flexner and Frank P. Bachman.
Part 2. Organization and Administration. George D. Strayer and Frank P. Bachman.
Part 3. Costs, school year, 1915–1916. Frank P. Bachman and Ralph Bowman.
Part 4. Industrial work. Charles R. Richards.
Part 5. Household arts. Eva W. White.
Part 6. Physical training and play. Lee F. Hanmer.
Part 7. Science teaching. Otis W. Caldwell.
Part 8. Measurement of classroom products. Stuart A. Courtis.[1]

The scope of the survey is more clearly indicated by the special topics considered. In addition to the summarizing by chapters of the several separate parts the general volume presents data and interpretations on: Gary, its industries and its people; course of study; teaching staff; classroom instruction (judged by observations extending over four months and based on a total of 228 recitations in the eight grades and the high school); auditorium and religious instruction; enrollment, attendance, and pupil progress; and conclusion. The special topics of the other parts are:

Part 2. Present-day problems; program; plant; organization; use of plant; supervision and administration; comparative cost.

[1] The publication of the report did not begin until December, 1918. The successive parts cost, respectively, 25 cents, 15 cents, 25 cents, 25 cents, 10 cents, 10 cents, 10 cents, and 80 cents, and will be sent on receipt of the amount specified, by the General Education Board, 61 Broadway, New York City.

Part 3. Accounting methods; current cost of entire system; current cost of regular day schools; current cost of larger day schools; current cost of the school shops; capital outlay for grounds, buildings, and equipment; fixed charges; financing the system.

Part 4. Shop work in Gary schools; shops and tests (machine, forge, foundry, printing) in Emerson School; shops and tests (printing, woodworking, sheet metal, plumbing, painting, shoe) in Froebel School; shop work in Jefferson School; drawing and handwork; forms and records; summary and conclusions.

Part 5. Aim of household arts work; cooking, time schedule and enrollment; the cafeteria; staff and instruction; tests; merits and defects; sewing, time schedule and enrollment; equipment, staff and instruction; tests; merits and defects.

Part 6. Place of physical training and play; facilities; teaching staff; instruction; tests and results; merits and defects.

Part 7. Science teaching as a part of a modern curriculum; science teaching in the Gary schools (general plan, time allotment); daily teaching schedules and composition of classes; nature study and garden work in primary grades; staff and instruction in nature study; botany and gardening; zoology; physics; chemistry; tests; pupil helpers in science work; conclusion.

Part 8. Introduction; tests and testing conditions; handwriting; spelling; arithmetic; composition; reading (the presentation of the general results of each of the five subjects tested is followed by a critical discussion); factors affecting performance; conclusions.

The several authors received special assistance in various phases of their work from Frank L. Shaw, Edith Holman, Anna C. Thornblum, Trevor Arnett, Frederick Cleveland, Frank E. Spaulding, Anna M. Cooley, Shattuck O. Hartwell, Frank W. Ballou, Paul H. Hanus, Leonard P. Ayres, Edward L. Thorndike, Charles H. Judd, William S. Gray, and groups of assistants, some of whom were especially trained to do specific tasks with unquestioned accuracy. Each part of the report is amplified with numerous tables, charts, illustrations, and special appendices, some of which are richly supplied with samples of the evidences supporting the conclusions. Taken as a whole, the Gary study is probably the most analytic educational survey yet accomplished. By reason of the ample resources available for, and the freedom enjoyed in, the undertaking, it was possible to increase the number of aids and devices used, to vary the approaches to the study of particular phases, and to cross section at different angles the processes and the results characteristic at Gary.

In marked contrast with the usual survey, which addresses itself to the task of finding the secret of "a local situation," the results of the Gary survey, in a peculiar sense, necessarily become vital for all educational interests, especially in the United States. The evaluations discovered are direct contributions, derived from the ascertainable results of an experiment on a large scale. "While Gary would hardly have been selected deliberately as the fittest place for a considerable experiment in public education, nevertheless, from one point of view, perhaps no place could have been chosen where there

were fewer obstacles and where conditions were more favorable to innovation." That the schools are feeling the impetus of experimentation is indicated by the "complication" of various detailed features which tends to baffle analysis and evaluation in light of long-established practices, and also by this observation: "There has been a distinct process of development, at times such rapid and unstable development, that our account will in some respects be obsolete before it is printed."

Gary is credited with having "adopted the progressive, modern conception of school function, formulated its conception in clear terms, and with all possible expedition provided facilities adequate to the conception." Its experimentation in utilizing its plant by all the children has resulted in its distinctive contribution to school organization. "Gary has attempted to practice democratic theory in school conduct and discipline." Over against these achievements it is found that the execution of the plan is "defective" both in respect to administration and supervision, that in the fundamental necessities of education, the "old line" branches, the achievement falls short of usual performances, and, in respect to the expansion of the curriculum by the addition of scientific materials, community work, and physical education, etc., "that mere practical occupation is not alone broadly educative." While it is found to be difficult to measure accurately by cost computations, because "the town buys different opportunities under different conditions," it is concluded that the advantages offered "probably cost less than the same advantages on a more conventional plan of school organization."

The most distinctive feature of the survey is its persistent effort to establish its conclusions on the basis of objective evidence. Wherever possible standard and provisional tests were made, including fundamental subjects, science teaching, industrial work, household arts, and physical education. Indeed, in view of the exceptional monographic treatment of the measurements of classroom products, the survey may be regarded as a testing of the tests. The more marked developments at Gary and of the survey use of tests are almost coeval, and there is accordingly a fitting timeliness in this effort to make "a critical study of the results secured," and thus arrive at their true value in the interpretation of specific educational processes.

Standard tests in five of the common subjects were given in the four larger schools and included elementary and high-school grades. The subjects are handwriting, spelling, arithmetic, English composition, and reading. Handwriting was tested by three methods: The Cleveland free choice, Courtis dictation, and specimens obtained from the composition tests. The Ayres scale was used in finding the quality. Spelling was measured by the Ayres scale, the material

being collected in three ways: The Cleveland survey lists of disconnected words, sentence dictation at a definite rate, and the spellings in the composition papers. In arithmetic, use was made of the Courtis Series B test in fundamentals and of the multiplication and fraction tests of the Cleveland survey. Narration was the only form of English composition measured, the test given followed the plan in the Denver survey, the quality being rated by the Hillegas scale and the papers scored for different sorts of errors. Oral reading was tested by Gray's scale, and silent reading by a reading-and-reproduction test, by the Kansas Silent Reading test, and by the Trabue language scales B, C, D, and E. The total number of tests, including repetition, was 55. The total number of papers scored and tabulated was 69,282. Unusual care was exercised in securing control of the conditions under which the tests were given. Duplicating the scoring of papers and checking by the examiners were precautions taken to secure accurate data, in addition to the special training given, as in English composition and reading, to the scorers for the task of scoring the papers. The general conclusion derived from the measurements is—

> That the product of classroom teaching of the fundamentals listed above is poor in quality and inadequate in amount; it approximates in character the product of the poorer conventional schools, and reveals in no particular the slightest indication that it has been affected either favorably or unfavorably by the enriched curriculum, or other special features of the Gary schools.
>
> The results do not mean at all that the movement for the socialization of school work is wrong, that the new type of organization is injurious, and that a modernized program is a failure.
>
> * * * When the investigation was undertaken, it was expected that decisive results would be secured, it must now be emphasized again and again that the effects of the newer ideals of education have not been measured, because at Gary these ideals are operating under such conditions that they play little or no part in determining the product of classroom teaching.

The Gary survey, accordingly, brings us to the point where one must question, whether or not, vital experimentation outruns the range of "standardized" tests? Must these be revised, or even entirely reconstructed in order to keep up with the modern socialized school? Must measurement forsake "the fundamentals" and pursue "the newer ideals of education" in order to preserve the integrity of the science of education?

Harrisburg, Pa.—"The Plain Truth About the High School Situation in Harrisburg" (24 pp.) is another instance which shows how completely the building project of a school system involves the education which it undertakes to give to its children. This document contains (pp. 10–24) the report of James H. Van Sickle who was invited by the special high-school committee to examine the problems presented by the high-school situation. His conclusions

and recommendations were based upon a week's observation in the city and transmitted to the chairman of the committee, August 1, 1916. In presenting the three alternate plans which the city could adopt, the report gives a special review of the arguments for the junior high school as a part of a city plan of organization. At the general election on November 7, 1916, the sum of $1,250,000 was voted for the use of the school district in making proper high-school provisions.

Framingham, Mass.—The impossibility of the local authorities and citizens reaching a satisfactory solution of the problem which involved a needed school building in 1914 led the school committee of the town of Framingham to invite James H. Van Sickle, George D. Strayer, and Ernest C. Moore, as a special committee, to study the situation and to report on the building needs of the town. This report is published in the 1916 "Report of the Board of School Committee and of the Superintendent of Schools" as Appendix A (pp. 42–73). Several methods of analysis were used for determining the building situation, such as the growth of the schools, and the indicated future needs of the town, including the Strayer score card for city school buildings, increase in population in school attendance, the retardation and elimination of pupils, the inadequacy of the present plant, the availability of land, the industries into which children may be expected to go, and transportation facilities. On this basis a building program is recommended.

Brookline, Mass.—On April 23, 1917, the report of an "Educational Survey of the Public Schools of Brookline, Mass." (436 pp., with numerous tables and charts), was presented to the school committee of Brookline, which authorized the inquiry on June 5, 1916. The survey staff included James H. Van Sickle, director of the survey; Henry S. West, Harlan Updegraff, George D. Strayer, Egbert E. MacNary, May Ayres, Bertha M. McConkey, James H. McCurdy, Wilbur F. Gordy, and Edwin A. Shaw. The method of the survey, which included observations on the ground, distributed over a period of six months, during which different members of the staff were present at different times, enabled the director "to gain the necessary insight into the complex problems involved which would enable him to present a unified report" for which he assumes full responsibility. The scope of the survey is clearly indicated from the topics to which the chapters are devoted: The Brookline community; the school system; school finances; school buildings and equipment, elementary schools, high school, practical arts and manual training buildings, public gymnasium, summary of existing conditions and plans for the future; the school population; provisions for safeguarding health; the kindergartens; the common branches,

with tests in arithmetic, spelling, penmanship, reading, and composition; the special branches; grades eight and nine; the high school; the school of practical arts; a demonstration school for Brookline. A summary of conclusions is presented on pages 5–26.

The most interesting suggestion growing out of this detailed study of this wealthy suburb, which "has been a pioneer in nearly all phases of education which are agitating the public mind to-day," is the recommendation that the school committee establish and maintain a demonstration school for Brookline:

> As a result of an educational survey, something of a practical nature should follow not only in the matter of buildings, organization, and general directions as to educational policy, but in addition something that would afford a continuous opportunity to test and demonstrate the best things capable of being done in the town of Brookline itself.
>
> Other cities, Detroit and Boston, for instance, and a number of smaller cities have established departments of reference and research which deal extensively with the particular school system as a whole. A demonstration school would deal intensively with a problem under controlled conditions. The results in Boston and Detroit are published, and to a certain extent Brookline can share the benefit of their findings. But this is not enough. There are certain problems that Detroit's efficiency office and Boston's efficiency office can not solve for Brookline. These problems must be solved by Brookline and in Brookline. There are other problems which no school system has yet undertaken to solve. Here lies Brookline's opportunity, not only to benefit her own schools, but, through publication of results to make a unique contribution to the cause of public education. Her wealth and her standing among progressive American communities lead one to expect from her some noteworthy contribution to the general welfare.

Richmond, Ind.—Attention has been given to the place of the kindergarten in a number of surveys of city schools, but the first kindergarten survey, as such, is reported in the "Survey of the Kindergartens of Richmond, Ind.," by Alice Temple, issued as Supplementary Educational Monographs (Vol. I, No. 6, September, 1917, the University of Chicago Press, 54 pp.). The material for the study of the eight kindergartens of this city was gathered during visits made on nine days in January and February (1917?), which included also all the first-primary grades. Written material by the kindergarten and first-primary teachers, special conferences with teachers, information from the office, and the course of study planned in 1912 supplied additional data for developing the treatment and reaching the conclusions in the five chapters: The kindergartens; room equipment; the teachers; the relation between the kindergarten and the first grade; curriculum and methods of the kindergarten, including subject matter and methods, manual activities, language and literature, physical activities, and music.

St. Paul, Minn.—The elaborate study of the St. Paul "situation," authorized by an ordinance of the city council on May 23, 1916,

amended February 16, 1917, and conducted during the months of January and February, 1917, will afford an opportunity to compare, in part, the fortunes of public education under the recently devised "commission" form of city government with its progress under the form thus displaced.

The four major issues upon which a report was desired included: (1) The situation with respect to the school plant, together with a program for the development of adequate school accommodations; (2) a study of the needs of St. Paul for vocational education and a program for the establishment of this type; (3) a study of the work done in the classroom with particular reference to the development of more efficient teaching and a more satisfactory curriculum; and (4) a consideration of the administration of public education.

The survey commission included George D. Strayer, chairman, Lotus D. Coffman, and Charles A. Prosser, each of whom directed one of the three sections of the study as organized. The "Report of a Survey of the School System of St. Paul, Minn." (pp. 962, 141 tables, 9 figures, 2 charts) comprises: Part I, The Administrative Problem (pp. 5–210, 55 tables); Part II, The Instructional Problem (pp. 211–660, 52 tables, 6 figures); Part III, The Vocational Problem (pp. 661–832, 2 charts); and appendix (pp. 833–962, 34 tables, 3 figures). The editing of the report and the delay in publication suffered from a variety of circumstances, including war services of some of the surveyors. Part I, containing the general administration and school building survey, was prepared by George D. Strayer and N. L. Engelhardt, and treats of the administration of the schools, school attendance and census, conservation of health, the cooperation of the public library with the schools, buildings and equipment, and cost of school maintenance. The adequacy of the city's school plant was measured by the Strayer score card for school buildings. "Three or more competent judges recorded their ratings on each building," "visited by one man at a time so as to permit of an unbiased, unhampered recording of the conditions actually found to exist in the building." The report of Part I was submitted on April 15, 1917, and contained a recommendation of a building program for five years to come, involving a bond issue of $3,000,000 which was voted by the taxpayers in June, 1917. A measure of the city's financial abilities was secured by comparing educational costs with 24 other northern and western cities with populations ranging from 125,000 to 400,000.

The political control of a city school system under the commission form of government is noted by the survey committee, which places itself on record as favoring the control of public education by a board of from five to seven members elected at large, one each year for either five or seven year terms of office at a special school election. This board, within certain limitations, to be determined by the charter, should have the power to levy taxes and be responsible for the expenditure of all moneys raised for educational

purposes. The board should, subject to the limitations commonly imposed with respect to the limitation of debt and, upon the vote of the people, have the power to issue bonds for the erection of school buildings. The board should be responsible for the erection of such buildings.

Part II, which deals with instruction and the course of study, and the appendix, presenting data concerning the classification and progress of school pupils, constitute over five-ninths of the entire report. This part was prepared under the direction of Lotus D. Coffman, assisted by the specialists indicated in the list of its topics: Instruction and the course of study; instruction in the first four grades, by Flora J. Cook; instruction in the upper four grades, by Lida L. Tall, Ernest Horn, and L. D. Coffman; measurement of children's achievements, by M. E. Haggerty and M. R. Trabue, assisted by C. L. Harlan, H. N. Fitch, E. Laury, and J. Boraas; the course of study, by Ernest J. Horn, Lida L. Tall, and L. D. Coffman; the secondary school system, by A. B. Meredith. The appendix chapter on classification and progress of school pupils was prepared by Marion Rex Trabue.

The instructional problem was studied by means of data collected in course of the application of six, in part, novel methods of securing information: By direct observation of recitations; by the children's own work, secured through a paper written (or drawn, with colored crayon, by nonwriting first-graders) on the topic "How I Have Fun"; by teachers describing in writing the most satisfactory lesson or lessons, and the points therein considered good, they had given during the first half-year; by the written criticisms and discussions of teachers after observing a model lesson by one of their number (e. g., a lesson in reading by a fourth-grade teacher) in response to five specific questions; by the examination of data furnished by supervisors, principals, and teachers; and, by standardized tests given the pupils. The study of the four upper grades did not include the children's essays and the teachers' written description of lessons. A distinctive contribution is made, among the group of suggestions offered for the improvement of instruction, in the form of plans for making a course of study for the schools and for the reconstruction of the syllabus of the course of study. It is believed that such work will definitely improve the classroom teaching, which should be the aim of all who cooperate in this labor. "The problem of the course of study is to determine what specific items of subject matter are to be taught. The syllabus attempts to assure that such subject matter will be taught and with the greatest efficiency."

Over one-fourth—or 27.8 per cent, to be exact—of the report is given to the results of the extended measurement of the achievement of children in reading, spelling, handwriting, arithmetic, grammar, composition, and language. Twelve tests were distributed between

January 26 and February 21, so as to measure all grades from the first to the fourth year high school and "practically every child in the city" by one or more of the standard tests and scales. In order to make the measurements representative of city conditions, a unique plan of securing six rankings of all the schools on six different points was adopted, and four different groups, "from the poorest to the best," were arranged, from each of which two or more buildings were selected in all tests. As a check on the accuracy of the measurements, test data were secured in each instance, excepting reading in the elementary and the high schools and in grammar, from two groups of schools—those in which the tests were given by the members of the survey staff and those in which the tests were given by the teachers of the classes they were teaching under specific directions. Tabulations were made for the two groups separately and later the results compared and combined.

The following measures were used: Spelling, Ayres; arithmetic, Woody (addition, subtraction, multiplication, division); handwriting, Ayres (three-slant scale, 1912); primary reading, Haggerty (sight and phonetic scales); reading in intermediate and grammar grades, Thorndike's scale, alpha 2, and Haggerty, visual vocabulary; grammar, Buckingham (to eighth grades); language, Trabue (language scales B, C, D, and E in elementary schools and L and M in high schools); composition, Nassau County supplement of the Hillegas scale (elementary and high schools). Computations were made so as to render these midyear tests comparable with the test norms determined at various times in the school year. In order to test the reading abilities of high-school pupils a new scale was devised, involving "an understanding-of-sentence test." It consisted of nine paragraphs selected from seven different writers, of varying degrees of difficulty, each paragraph calling for written answers to five specific questions. While this test proved to be suggestive, it "was found somewhat too difficult." The overlapping of the grades and the variations among schools are shown in detail. The recommendations include a specification of the supervisory values of test results, a suggestion of the device of reclassifying pupils according to specific grade abilities for brief, intensive drill in various subjects until they are brought up to grade, and the establishment of a bureau of educational research.

Part III, The Vocational Problem, was prepared by C. A. Prosser with the assistance of W. H. Henderson, Mrs. Lucinda Prince, Josephine T. Berry, Mr. Gsell, an advisory committee on vocational education consisting of 20 citizens, and several organizations. The study extended from February 6 to April 15, 1917, and was made at the total expense of $2,000. The topics discussed include: Why

vocational education for St. Paul; for what vocations should St. Paul give training; how far do the vocations train their own workers, and how far do the St. Paul schools meet the need for vocational training; recommendations as to training needed; recommendations as to types of school; and, vocational and prevocational training for girls and young women. The appendix details short-unit vocational courses for men and for women. The limits of the published report excluded four special studies which were filed for public examination in the office of the city commissioner of education.

Portland, Oreg.—One or two attempts have been made to estimate the accomplishments in school systems directly traceable to earlier surveys. It has occasionally happened that the publication of the report of a given survey has been delayed so long as to permit the announcement of the adoption of a few of the recommendations growing out of the study. The "Report of Supplementary Survey of Portland Public Schools," by P. W. Horn, April, 1917 (64 pp.), is especially interesting as an estimate of the results of a previous survey. This investigation was made "in behalf of the chamber of commerce and the city school board jointly" in the month of April, the investigator spending two and one-half weeks in visiting schools, inspecting the work during school hours, examining written work prepared by pupils, and interviewing "a large number of people who had views to express in regard to the schools." These inquiries were to make a rapid survey of the Portland public schools with special reference to their advance or retrogression since the survey of 1913, which was conducted by Dr. Cubberley and a considerable staff of assistants. This resurvey finds that progress has been made by the Portland schools in 48 different particulars. In two respects a backward step has been taken. Twelve of the original recommendations which have not yet been put into effect should be acted upon favorably. Only three of the original recommendations it probably would not be wise to carry out. Eighteen recommendations are reaffirmed or added in line with the original recommendations. It is found that "the greatest obstacles in the way of the Portland Schools to-day are distrust, the impossibility of building up a better teaching corps under present legislation, and the probability of limiting the school tax levy to 6 mills on the dollar, when at present 6.8 mills is needed."

Bloomington, Ind.—The literature of educational surveys has been permanently enriched by the publication of "A Survey of a Public School System," by Henry Lester Smith. (Teachers' College, Columbia University Contributions to Education, No. 82, 1917, 304 pp., 153 tables, 16 figures.) This survey was undertaken "with the two-fold view of determining and remedying conditions" by using so far as possible the local resources within a school system and of the State

university in its midst, to which were added a small amount of outside supervision and direction. It accordingly stands as essentially a cooperative survey. The entire period covered by the study is six years, with most of the work having been done in the years 1912–13 and 1913–14, during the last of which assistance was given by George D. Strayer. At different times various tests were given, respectively, by Clifford W. Stone, E. E. Jones, S. A. Courtis, and H. G. Childs. Theses for the degree of master of arts in Indiana University were prepared by eight graduate students who worked on practical school problems in the city, and portions of five of these studies are incorporated in this publication. As to the practical educational value of an "autosurvey," the author's experience warrants him "in predicting a survey undertaken by the teaching corps as a whole will soon reveal to the superintendent that some of the accomplishments of principals, buildings as a whole, or individual teachers will surpass even his own dream of what could be accomplished."

The scope of the study is readily seen from the list of topics which are treated: The community and the plan of its public school survey; normal progress, retardation, and acceleration; census, enrollment, promotions, failures, withdrawals, repetitions; finances; the course of study; achievement of pupils; teachers; supervision of instruction; school buildings; general conclusions and recommendations; criticisms of Bloomington school survey; and value of a survey similar to that made of Bloomington. In view of the dynamic character of an educational system and the length of time during which this study was in progress, a large amount of the material represents the accumulation of readjustments which the school authorities and teaching staff were enabled to put into practice in the succeeding years. This enrichment of school life was made possible through the more intelligent direction and supervision resulting from the progress of the protracted studies.

Over one-third of the volume is given to the study of the achievement of pupils as measured by standard tests, withdrawals and failures, and correlation of rank in various subjects. The tests given in arithmetic include the Indianapolis, Stone, Courtis, Haggerty and Smith. The handwriting was measured by the Thorndike and Ayres scales. Spelling was tested by the Buckingham, Rice, and Courtis lists. Composition and reading were measured by the Courtis tests in English composition and rates of reading. Drawing was tested by the Thorndike drawing scale. Bloomington will share in the benefits of the State-wide application of the Thorndike visual vocabulary test and understanding of sentences test which were given in a large number of Indiana towns.

In attempting to evaluate the results of self-examinations by a small school system, the author concludes thus:

> Above everything else, a survey of the Bloomington type results in riveting ultimately the surveyor's attention on individual pupils and their performances and away from the mass performance. The result is that individual needs become more quickly evident and consequently more quickly ministered to.

Akron, Ohio.—When the educational committee of the Chamber of Commerce of Akron, Ohio, was organized in December, 1916, it attempted to foster the widespread interest in public-school affairs by making—

> so complete a study of the school system as to make possible a community program of education. * * * We had in mind what is best for the young people of Akron at the present time, and what the line of growth of the educational system should be, in order that each succeeding group of children be properly educated to fit into its life in this city.

Horace L. Brittain, director of the bureau of municipal research, Toronto, Canada, was invited to conduct the survey. He was assisted by Thomas L. Hinckley, of his bureau, and received the cordial cooperation of the local authorities and school staff. On July 10, 1917, he presented his "Report on the Schools of Akron, Made for the Educational Committee of the Akron Chamber of Commerce." (234 pp., 37 tables, numerous graphs and photographs.)

The three main topics included in the study are the raising and administration of school funds, the physical plant and equipment, and what the school revenue buys for the boys and girls of Akron. The consideration of the first topic presents general financial facts, financial methods, and business administration. The observation of the physical plant and equipment includes sites and buildings, ventilation and heating, lighting, cloakrooms, seating, cleaning of rooms, and a school building policy for Akron. The answer to the third topic led to an inquiry as to what is taught in the public schools; how the subjects of the course of study are taught in the elementary schools; instruction in the high schools; educational administration and supervision of instruction; educational records and reports; promotion of school children; retardation and overage; elimination of children; the exceptional child; medical inspection and open-window rooms in the schools; the academic and professional training of teachers, their working day, their pay, and length of service; and the mutual relations of the school and the community. The group of 47 findings and recommendations is presented in brief (pp. 21–35). The educational committee resummarizes the results of the study on pages 5 to 12 for the benefit of the citizens, to the end that the benefits accrue to the school system as early as possible.

Elyria, Ohio.—The radical character of the changes effecting the economic interests and the composition of the population recently

appearing in some of our smaller cities, and the consequent bearing upon educational problems are well illustrated in the report of the "Educational Survey of Elyria, Ohio," made under the direction of the United States Commissioner of Education (Bulletin, 1918, No. 15, pp. 300, numerous tables and figures). The survey was financed by the chamber of commerce and received the cooperative support of the school officers and teachers. The field work was under the direction of W. S. Deffenbaugh, with whom was associated seven other members of the Bureau of Education and five persons from outside. Each phase of the school system and its activities studied was assigned to a specialist. A total of 94 distinctive recommendations grew out of the conclusions reached in the study of the following special topics: Administration and supervision; school buildings, high school; instruction in primary grades; instruction in intermediate and grammar grades; civic education; home economics; and vocational education.

Measurements of the results of teaching were made by use of Haggerty's test for reading vocabulary, the Cleveland survey word lists selected from Ayres's spelling scale, Thorndike's scale for quality of penmanship, Woody's (Series B) and Stone's scales in arithmetic. A novel feature in the study of instruction in the primary grades is the analysis of "the out-of-school activities" of children in these four grades. The tabulation (pp. 138–139) of these experiences under home work, home games, vacation activities, and books read, furnishes useful guidance for correlation with the usual school room activities. The occupational analysis of the high school population and the vocational study of the 13 to 15 year old pupils in the elementary grades show a suggestive extension of methods appropriate to the study of vocational problems.

Janesville, Wis.—Upon the invitation of the board of education of Janesville, a city of about 14,000 population, a survey was undertaken by the Wisconsin State department of education. This study offered an opportunity "to present in organized form for the schools of Wisconsin the views of the State department on city school administration." The survey was organized under the general direction of C. P. Cary, the active direction of the field work and the preparation of the report being in charge of W. W. Theisen, who was assisted by H. L. Terry, B. R. Buckingham, H. N. Goddard, Amy Bronsky, Maybell G. Bush, Annie Reynolds, J. M. Dorrans, Janet R. Rankin, O. S. Rice, A. B. Cook, P. W. Dykema, Lucy D. Hale, Cecile W. Flemming, Benjamin P. James, Edgar F. Riley, Frank J. Lowth, and students in several normal schools who assisted in giving and scoring the tests in various school subjects. The report, "An Educational Survey of Janesville, Wis.," issued by

C. P. Cary, Madison, Wis., 1918 (329 pp), does not include all the material presented to the board of education in connection with the findings and recommendations. The published report is organized so as to present, first, the problems of administration, including the problem of high-school organization, the building problem, teachers and salaries, financing the school system, the board of education, census, enrollment, and attendance; and, second, the problems of instruction, including the problem of industrial education, classroom instruction in elementary schools, high-school instruction, special courses and instruction in special subjects, library work, time allotments and course of study, measuring results in school subjects, supervision of instruction, progress and classification of pupils, provisions for special classes, home cooperation, health and recreation. The measurement of results in school subjects include: The Woody, Courtis, and Stone reasoning tests in arithmetic; the Kansas silent-reading test in reading; the Ayres and Buckingham tests in spelling; the Thorndike and Ayres scales in handwriting; the Hillegas, Thorndike, and Trabue scales in grading the composition papers, and the Trabue language completion tests B and C.

Columbia, S. C.—An interesting geographical extension of the survey movement was made when the board of school commissioners of Columbia, S C., requested the United States Commissioner of Education to undertake the direction of a study of its public schools. This is the southeasternmost city of the Union to seek the benefits of a comparison of its educational activity with that of other cities. The report, "The Public Schools of Columbia, S. C.," Bulletin, 1918, No. 28 (192 pp., with numerous tables and figures), is a notable example of the sympathetic and constructive type of educational surveys. In presenting the 23 general recommendations growing out of its labors, the committee assigned to the task "has not undertaken in arbitrary fashion to tell Columbia what her school system should be nor how near the ideal in accomplishment she is nor how far away from it. This committee is not competent to define the ideal school system nor the ideal school practice. It can, however, bring to Columbia's attention those practices which are held by other communities, for the present, at least, to be the best." There is offered, accordingly, "a constructive program, the inauguration of which should properly extend over a period of years." "In justice to the superintendent of schools, the fact should be mentioned that from time to time in his annual reports to the board of school commissioners he has suggested many of the things which this committee recommends."

The characteristic qualities of the survey appear even in the headings of the six chapters of the report, most of which are phrased in

the form of suggestive problems and arguments. The city of Columbia and the rise of the public-school systems; are the schools of Columbia adequately supported? insufficient maintenance means meager salaries for school employees; insufficient maintenance limits the activities attempted; insufficient maintenance has rendered the supervision inadequate; the holding power of the system compares favorably with that of other systems. Some aspects of instruction and supervision were studied by means of standard tests in spelling (Ayres) and in arithmetic (Courtis, fundamentals, and Stone, reasonings). The data record interesting and important contrasts between the white and the colored pupils. The survey was made in 1917 by the committee designated by the Commissioner of Education, including four specialists of the bureau, F. F. Bunker, director; Henrietta W. Calvin, J. L. Randall, and H. H. Baish, and Supt. C. B. Gibson, of Savannah, Ga.

Winston-Salem, N. C.—"A Study of the Winston-Salem Schools," by L. A. Williams and J. H. Johnston, 1918 (93 pp.), is a larger outgrowth of the work of the home-county study clubs at the University of North Carolina which led the authorities of Winston-Salem and Forsyth County to desire an extended survey of their schools. The educational study of the schools of Winston-Salem, contained in this volume, is a part of the study of the larger system of the social and economic conditions of Forsyth County and of the industrial situation of the city. The visitation of the schools was made in February, 1917, the superintendent, principals, and teachers cooperating in every way possible. The topics of the report include: Historical; organization; the school plant; the pupils; the teaching staff and supervisory officers; and finances. The summary of the study concludes by saying:

> The superintendent knows that all these difficulties exist. He has repeatedly called attention to them. He needs more money and a larger force with which to handle the problem. That many of these conditions now obtain is the fault not of the school officials but of a too small banking account for the schools.

It is planned to have this study continued by making an examination of the teaching results of the schools.

Alton, Ill.—"A survey's finding is not worth much that could be carried out at once; it furnishes rather a goal toward which we can strive, an ideal that we can pursue." With this expression of its belief in the constructive character of a school survey, the special committee presented on April 29, 1918, to the board of education, city of Alton, Ill., the 29 "necessary and feasible recommendations as obtained from the survey" which had been made during the school year, 1917–18, under the direction of Supt. John W. Withers

("Findings and Recommendations of the Survey of the Alton Public Schools," pp. 88, numerous tables and figures). The cordial reception of the report is indicated by the accompanying record of favorable action upon 10 of these recommendations within less than a month thereafter.

The survey staff comprised eight assistant superintendents and other school officers of the St. Louis schools, each of whom prepared the reports on the following topics, respectively: Organization, administration, and supervision; teachers; spirit; methods of teaching; relations of teachers and other school officers, relations of teachers and children; course of study and school supplies; testing of the results of teaching in the elementary schools; the high school; the progress of children through the grades; and finances. One-third of the report is occupied with the results of the tests employed in six subjects: Arithmetic (Courtis, series B, and No. 8, series A), reading (Starch), spelling (Ayres), written English (specially devised to trace the "growth of sentence sense"), handwriting (Thorndike), and geography (devised by Reavis and Branon, as a completion test for the measurement of minimum geographic knowledge of elementary-school children).

Mount Holly, N. J.—The study of this small school system comprising a staff of 40 teachers and 1,110 pupils, conducted under the direction of the State commissioner of education, is marked by a particular interest in the problems of supervision and teaching. "The lack of a body of significant school records, of a comparative sort and covering a period of years, dealing" with a variety of problems such as "would be asked by a board of education and used by a supervising officer in a continuous self-survey of a system of schools, would seem to indicate a failure on the part of the school officials to fully appreciate the importance of such knowledge as an aid to increased efficiency, and for the information of the public." The observational part of the survey, made in February and in May, 1918, was conducted by A. B. Meredith and Z. E. Scott, of the State department of education. The application of standard tests was made by Profs. C. H. Elliott and C. S. Crow, of the department of education of the State University of New Jersey, the account of which constitutes three-fourths of the report, "Survey of the School System of Mount Holly, N. J., Northampton Township" (80 pp., with numerous tables and figures). The tests used were: English composition, in the grades and the high school (Nassau County scale); handwriting (Thorndike); spelling (Ayres and Buckingham); reading (Thorndike, Alpha 2); arithmetic (Courtis, series B, and Stone, reasoning); algebra, in first year high school (Holtz); and Latin, four years of high school (Henmon). The report closes with 29

recommendations, and a list of the equipment of a biological laboratory for a high school class of 12 pupils.

Des Moines, Iowa.—The applicability of survey methods to specific problems of a particular part of a school system is interestingly illustrated in the "Survey of the High Schools of Des Moines," by Ervin E. Lewis (University of Iowa Extension Bulletin, 1918, No. 37, pp. 64, with tables, figures, and map). The problems considered in this survey are stated as follows:

1. Are new high schools or additions to present buildings needed? If so, how many? Where? When?
2. Are different kinds of high schools needed? Should Des Moines continue its present policy of cosmopolitan high schools, or should special kinds of schools, such as commercial, technical, or trade be established?
3. Are junior or six-year high schools needed?
4. What should be Des Moines' policy with reference to vocational secondary education during the next decade?

The recommendations offered in answer to these questions are based on the results of a careful analysis of the historical development of high schools in the city and a comparison of Des Moines with 25 other cities of its size. A clearer perspective is gained by the concentration of those factors involved in the specific problems. The survey was authorized by the board of directors, sanctioned by the chamber of commerce, and directed by E. E. Lewis, with whom was associated a committee of the extension division and the college of education of the State university, as well as assistants.

Muscatine, Iowa.—The extent to which the problem of a building program, featured in several recent surveys, can be carried further into a stock taking of all the school plant of a small city is illustrated in the "Survey of the School Buildings of Muscatine," by E. J. Ashbaugh (University of Iowa Extension Bulletin, 1918, No. 41, pp. 38, 14 figs.). By means of Strayer's score card for school buildings, the seven large grade buildings, as well as the high-school building, were scored in January, 1918, by two members of the survey staff. It was found that the conditions of buildings and grounds were 22 per cent "good," 21 per cent "fair," and 57 per cent "bad." The findings are graphically detailed for the benefit of community interest and culminate in a group of recommendations "which will take years to complete."

Paterson, N. J.—An illustration of the progress made in the cooperation of the departments of education in higher institutions is found in the survey of the public schools of Paterson, N. J., which was made in the spring of 1918 by the staff and students of the department of educational administration of teachers college. The direction and guidance of the survey were by George D. Strayer,

N. L. Engelhardt, F. W. Hart, and E. S. Evenden. The details were marked out in the practicum in educational administration at the college. Four major studies were undertaken: The ability of Paterson to pay for educational advantages; the school building plant; the achievement of pupils in the elementary schools; the teaching staff and quality of instruction. The material on the last topic is not included in the report which appears in the "Annual Report of the Board of Education of Paterson, N. J., for the year ending June 30, 1918," (pp. 99–290).

The data for the measurement of the achievement of the pupils were gathered between March 14 and April 10, and are accepted as being comparable with the results of other surveys. The subjects measured and the tests given were composition (Nassau County supplement), handwriting (Thorndike), spelling (Ayres), arithmetic (Woody, Stone reasoning, Courtis fundamentals), language (Trabue), and reading (Thorndike, alpha 2). The tests were so arranged that every grade and every child in the regular elementary schools was represented in one or more of the subjects.

City school reports.—The biennium under review has witnessed an interesting addition to the literature of educational surveys in the form of the reports of boards of education and superintendents of schools. The following are a group of reports which illustrate the spread of the survey method and its utilization in creating a more intelligent public who support and patronize the schools:

"A Review of the Rockford (Ill.) Public Schools, 1915–16," by Supt. R. G. Jones (126 pp., 58 tables, 53 charts), contains information which was—

> collected and organized by the staff in the schools and submitted to the board of education by the superintendent of schools. Its purpose is to carry to the homes of this city information concerning the physical property, the curriculum, the teaching staff, the attendance, some measurable results in teaching, and other matters which may interest.

This detailed and forceful presentation of the schools was put forth with the hope of making "every citizen of this city better acquainted with an institution in which he is a stockholder." Tests of the achievements of pupils were made in penmanship, arithmetic, spelling, composition, and reading.

The "Report of the Superintendent of Schools, 1916–17" of Huron, S. Dak., by Supt. F. L. Whitney (86 pp., 35 tables, 39 charts), "attempts to give those more directly concerned a somewhat detailed idea of the present conditions obtaining in their public schools and to let them know what the schools are attempting to do." The material is arranged under these topics: Organization and administration; physical environment; teaching force; pupil accounting; quality of instruction; pupil achievement; and school costs. Tests

of pupil achievement were made in first grade vocabulary, spelling, arithmetic, handwriting, reading, composition, and algebra.

The first printed "Report of the Board of Education, 1912–1918," of Rochester, Minn., by Supt. H. A. Johnson (208 pp.), shows how the survey movement has found lodgment in this rapidly growing community.

> In these days schools are surveyed, tested, and measured; but so many times this is done hurriedly and by outsiders. In many cases the results can not help but lack in thoroughness. For the past five years our schools have been constantly surveyed by the superintendent, working in a spirit of cooperation with his teachers.

The effort to secure a definite measurement of the efficiency of their schools led the superintendent to act upon the suggestions contained in the circular of the Bureau of Education, City-School Circular, 1915–16, No. 21, offering "some suggestive points for superintendents in the smaller cities who are surveying their own schools." The material accumulated (pp. 31–141) includes tests in reading, errors in English, grammar, and punctuation, arithmetic, spelling, age-grade, retardation, and acceleration, promotion, etc. Mr. W. F. Miller, of the University of Minnesota, cooperated in giving the tests from which were derived the "cause and effect and analogies tests."

> This report we hope will be studied by every school patron into whose hands it may fall. It answers many questions which have been asked again and again. The tabulations will be thrown on a screen at teachers' and parents' meetings, so that every parent may learn their significance.

Supt. H. O. Dietrich, of Kane, Pa., is utilizing a novel monographic method of reporting the results of self-surveys in the schools of this city. The board of education of Kane has issued the following series of documents: (1) Estimates or positivism. Which? April, 1917 (15 pp.), reporting tests in spelling, handwriting, and arithmetic; (2) Child Accounting for the Schools of Kane, Pa., June, 1917 (8 pp., 7 tables); (3) The Child. Where is He? October, 1917. (8 pp.); (4) Education in Dollars and Cents, March, 1918 (16 pp.); (5) Does it Pay? April, 1918 (15 pp.), containing 15 exhibits from publications of the Bureau of Education; (6) Suggestions for Teachers, June, 1918 (24 pp.), dealing with the course of study. In 1916 he published "An Evidence, the Curwensville Schools" (23 pp.), which was a report modeled on these lines.

Supt. Ernest C. Witham, in the "School Report of the Town of Southington, Conn.," in 1916, summarized the progress of the four previous years, offered a program for the future, and informed his constituency on such matters as retardation and results of tests in English composition, writing, arithmetic, spelling, and improvement of teachers while in service. In his report for 1917, with an increase in graphic and tabular presentations, he again exhibits the quality

of instruction in the schools in arithmetic, English composition, spelling, handwriting, algebra, and shows the holding power of the high school.

"The Mirror; As We See Ourselves" (28 pp.), was issued by Supt. Frederick S. Camp as a partial "autosurvey" for the period, September, 1916, to February, 1918, as a report on the work of the supervisor of tests and standards of the public schools of Stamford, Conn. It includes an eighth grade study, grade progress table, time allotment, distribution of marks in eighth grade and high schools, graphic exhibit of school buildings and premises, results of tests in handwriting and eighth grade composition, and a report of the first year's work of the supervisor of tests and standards.

VOCATIONAL EDUCATION SURVEYS.

Vocational education, as a specific problem as well as an element in school situations, has received attention during the biennium in both special and general surveys. The passage of the Smith-Hughes Act by Congress in February, 1917, brought to a Nation-wide conclusion the first definite formative developments of the vocational type of education, and fixed the program for its extension.

The original edition of the report of the Minneapolis Survey for Vocational Education, published on January 1, 1916,[1] being soon exhausted, has been thoroughly revised and issued as "the finished result of the survey" under the title of "Vocational Education Survey of Minneapolis, Minn.," made by the National Society for the Promotion of Industrial Education, by the United States Bureau of Labor Statistics, 1917, Bulletin, Whole No. 199, Vocational Education Series, No. 1 (pp. 582, 25 chapters, 4 appendices, 20 tables, 3 charts).

Indiana.—Four of the surveys for vocational education growing out of the vocational education law passed in February, 1913, by the Indiana Legislature, have appeared within the biennium. This series of surveys is unique in that it attempts, under State authority joined with local cooperation, to provide a State-wide program built up out of the results of surveys of well-selected communities. The State board of education, in accordance with the provision of the act, organized a vocational division, placed in charge of W. F. Book, deputy superintendent, with whom later were associated A. M. Smith, special agent in charge of agricultural education, Adelaide S. Baylor, special agent to supervise domestic science, and Charles H. Winslow, special agent for vocational research. The underlying purpose of all these surveys was—

to ascertain from a study of the industries of a particular community the facts that would be needed to outline an efficient and economic program of

[1] See Report of the Commissioner of Education for the year ended June 30, 1916, Vol. I, pp. 166–167.

vocational training for that community, and to ascertain from a study of the public, private, and parochial schools of the community how far the vocational needs of that community were already being met by existing agencies. The ultimate purpose was to suggest a definite program for organizing and developing vocational education in the particular city or district covered by the survey—

and thus "some definite help might also be obtained for solving the problem of providing an efficient scheme of vocational training for the State as a whole."

The "Report of the Richmond, Ind., Survey for Vocational Education," December 1, 1916 (586 pp., 41 tables, 51 illustrations), was conducted cooperatively by the State board of education, the board of education of Richmond, and Indiana University, assisted by an extensive local survey committee of 51 members under the direction of Robert J. Leonard, of the university. The field work extended from February 1 to May 15, 1916. Occupational information concerning the forms of industrial, commercial, and household employment, juvenile employment, and home and school gardening is collected in detail, and the present provisions of the schools to meet these needs are set forth. Part IV presents the methods of the survey and the forms and schedules used in making type studies.

The "Report of the Evansville, Ind., Survey for Vocational Education," January 1, 1917, by Charles H. Winslow (510 pp., 65 tables, 4 charts), with the assistance of a local survey committee of 12 members and the cooperation of 23 organizations, was prepared in response to the invitation of the Evansville board of education to the State board of education "to make a survey of the city of Evansville, looking toward the establishment of a day vocational school," $2,800 being appropriated for the work. The occupational analyses present the situation in furniture and woodworking industries, building trades, cigar factories, dressmaking, flour mills, garment making, gas engine manufacturing, hospitals and nurses, laundries, machinist trade, plow manufacturing, potteries, printing, railroad shop, retail stores, stove manufacturing, vehicle manufacturing, gardening, and general agriculture. The resources of the schools and libraries for vocational purposes are included. Special attention is called in Part VIII to the vocational needs of colored people.

The "Report of the Jefferson County Survey for Vocational Education," January 1, 1917 (86 pp.), was made by a survey committee of 13 members, including State and local representatives, under the direction of W. F. Book, and contains the material of the survey conducted during the months of June to December, 1916. This study followed four main interests, which are represented in the organization of the report, as follows:

(1) The economic situation, setting forth important facts pertaining to the location, history, and industries of the county, the character and extent of

land and other property with which the farmer has to work; (2) the status of husbandry in the county; (3) financial resources of the county and agencies for rural betterment; (4) the status and work of the public schools of the county.

The "Report of the Indianapolis, Ind., Survey for Vocational Education," January 1, 1917 (Vol. I, 400 pp., 31 tables, 4 charts), was prepared by Charles H. Winslow, who was aided by a State survey committee of 28 members and 23 cooperative agencies in the city. One-half of the fund of $7,000 for the expense of the survey was contributed by the State board of education and one-half by the Indiana board of school commissioners. The field work was begun on July 5, 1916. The Indianapolis survey, where possible, is differentiated from the other surveys chiefly in emphasis—

by the effort to present process analyses by industries, to summarize the results of the survey in analysis charts of occupations, to consummate trade agreements, and to regard the conditions of employment and the vocational needs of boys and girls 14 to 16 years of age, and of those who have passed the age of compulsory school attendance.

The following tables of agreement were entered into: A two-year part-time agreement for instruction in salesmanship, by four firms; a continuation school agreement for instruction in salesmanship, by four firms; agreement for a two-year day course in woodworking, by 16 employers; a three-year compulsory evening continuation school agreement for plumber's apprentices, by 60 employers; agreement for a two-year day course in sheet-metal work; and for a one-year part-time course for girls who wish to become telephone operators is pending.

Wilmington, Del.—"Industrial Education in Wilmington, Delaware" (Bulletin, 1918, No. 25, pp. 102, 57 tables) is the report of a survey made by Fred C. Whitcomb under the direction of the Commissioner of Education. It forms "a part of a comprehensive constructive educational survey of the State of Delaware," undertaken by the Bureau of Education in cooperation with the Delaware Educational Cooperation Association. The purpose of the effort was to correlate the results of a study of the schools, of the industries, and of the provisions for industrial education in both schools and industries, into a constructive program. The field work was accomplished during the period from November, 1915, to January, 1916, use being made of the six forms, reproduced in the appendix. The study is characterized by the special attention given to the 13 or 14 year old pupils, in accordance with the approach made to the problem of vocational education found in recent surveys.

After stating the local features of education and employment legislation affecting minors, the report presents its material under the following topics: A study of certain groups of public school pupils;

a study of the industries; young people in the industries; educational needs of workers, and present educational opportunities; suggestions for a program of industrial education.

Fort Dodge, Iowa.—In "The Boy and the School, a Partial Survey of the Public Schools of Fort Dodge, Iowa," August 15, 1917 (19 pp., Bulletin 32, engineering extension department, Iowa State College of Agriculture), Edward T. Snively undertakes to discover in this typical town, located in an agricultural community—

> the chief reasons why so many boys leave the schools of our city before completing the course; in what grades the greatest number of boys drop out; what they do after leaving school; what their earning capacity is; and what readjustments should be made in our present courses of study to make them meet, even more fully than they are now doing, the needs of our boys and of the community.

The data studied include enrollment of boys in the sixth and seventh grades, in the autumn of 1909 in order to see what had happened to them educationally and vocationally by the time of the study, which was made in February, 1916.

Commercial education surveys.—That a survey should "present a program for development" is illustrated in the studies made of commercial education in Missouri (1916) and in New Mexico (1917). "They had their origin in the rush of the commercial teachers of each State to inaugurate a constructive and comprehensive program of State-wide standardization of commercial education" and were authorized by the commercial departments of the State teachers' associations. A summary of the methods, scope, and findings of the studies is contained in the "Signified Results of Missouri and New Mexico Commercial Education Surveys," by Paul S. Lomax, School Review, February, 1918 (pp. 73–84), who served as the chairman of the committee for each State. Questionnaire data were collected and summarized under these topics: Qualifications of commercial teachers; equipment of commercial departments; business curriculum; courses of study; educational measurements.

HIGHER EDUCATIONAL INSTITUTIONS.

North Dakota.—On August 4, 1915, the newly created North Dakota board of regents invited the Commissioner of Education to assist the board in making a survey of the State educational institutions as required by a recently enacted law. The survey commission, selected jointly by the commissioner and the board, included William T. Bawden, Edwin B. Craighead, and Lotus D. Coffman. The field work was begun November 1, 1915. Approximately 100 days were spent in the field studying the State institutions, including the university, the agricultural college, and the State normal school at Valley City. The final preparation of the report in June, 1916, undertook to handle the

findings and recommendations so as to realize the desire of the board for "a comprehensive, constructive report, looking toward the future development of a sound, progressive State policy for higher education rather than a mere critical analysis of any defects that might be found to exist."

"State Higher Educational Institutions of North Dakota, a Report to the North Dakota State Board of Regents of a Survey made under the Direction of the United States Commissioner of Education," Bulletin, 1916, No. 27 (202 pp., 56 tables, 26 figures), presents the report under the following topics: The State of North Dakota; brief outline of educational needs, as indicated by character and resources of the State; the University of North Dakota; the North Dakota Agricultural College; function of the university and agricultural college; department of education at the university and the agricultural college; the State normal schools; the State school of forestry and the State school of science; the State library commission; statistical comparisons; comparison of courses and classes at the university and the agricultural college, and summary of recommendations. This survey is an addition to those which have more recently been emphasizing the need of proper correlation along functional lines. In considering the arrangements for instruction, attention is called to the contrary effects of the "vertical" and the "horizontal" spread in classes and courses. North Dakota being essentially a rural and agricultural State, the determination of its educational needs are most effectively stated (p. 26). The interpretation of these needs is made clearer by the 12 presuppositions which precede (p. 170) the 40 recommendations which are made to the State board of regents.

University of Nevada.—On February 17, 1917, the Commissioner of Education presented the report of the survey of the University of Nevada conducted under his direction, as provided by the action of the Educational Survey Commission created by the legislature of 1915 of that State. The work of the survey was done by Samuel P. Capen and Edwin B. Stevens. The labors of this committee extended during the last five months of 1916. In studying the institution and preparing the material which was published as the "Report of a Survey of the University of Nevada," Bulletin, 1917, No. 19 (184 pp., 30 tables, 13 figures, 25 maps, with numerous tables in the appendix), the survey was attentive to the four basal criticisms indicating unrest in the public mind as to the operations of the institution. The institution's relation to partisan politics seemed to be "the root of all the evil." The detailed topical studies, which follow in many respects the surveys of the University of Iowa and the University of Washington, offer contributions to the field of university administration. The specific topics considered include: The University of Nevada and public sentiment; government and control of the University of

Nevada; higher education in Nevada and the factors which condition it; the University of Nevada and the public service; standards and the distribution of the student body at the University of Nevada; educational administration of the university; training and experience of the faculty; work and remuneration of the teaching staff; costs; organization and needs of separate divisions of the uinversity. The committee finally conceives of an ideal for a university in such a State which is thus described:

> In view of a small population and insistent local needs, the institution would devote itself solely to the education and service of the citizens of its own State. It would consist of but few colleges and departments. Exclusive of a college of arts and sciences designed to give facilities for liberal culture and pure scholarship to those who can take advantage of them (and the number should increase as fast as possible), it would offer technical and professional courses only in lines contributory to the major vocations of the State. It would recognize a special obligation to provide enough trained teachers to insure to the State an evenly served and effective public school system. With respect to the number of students in residence, it would be a small institution. It would, indeed, regard its small size as a peculiar privilege, enabling it to give to those who frequent it a more intimate oversight, a more intensive training than are commonly afforded in very large institutions. It would seek a national reputation for the highest excellence in those few departments which the special needs of its constituency have called into being. It would press for means to secure men and equipment to win such a reputation. It would convince the State of the essential soundness of this program, of the bigness of the opportunity thus presented. It would reinforce its appeal by making itself the State's center of inquiry and distribution for all forms of knowledge bearing on the health, the material interests, the intellectual and social welfare of the citizens.

University of Kentucky.—In January, 1917, the governor of Kentucky, acting in accordance with the resolution of the board of trustees of the University of Kentucky adopted in the preceding month, appointed an investigating committee of the board to report in the following June upon the propriety of consolidating the two colleges of engineering and the conditions involving the "discontent among the alumni and student body toward the existing administration." This committee called to its aid a survey commission comprising Thomas F. Kane and Charles M. McConn, with Kendrick C. Babcock as consulting member, two of whom spent 20 days at the university and the third visiting it at four different times. The "Report of the Survey Commission," Bulletin of the University of Kentucky, July, 1917 (pp. 7–76, with a later report for prolonged consideration of future policy, pp. 77–92), includes also the report of the investigating committee. The work of the survey commission undertook to formulate principles by which practices found current in the institution could be judged accordingly. This study is necessarily local and descriptive, using so far as possible many contributions of the surveys of the University of Iowa and the University of Washington

for comparative standards. Because of the peculiar situation involved this study is, for surveys, unusually frank and personal. Of the 69 recommendations reported to the board of trustees, all but one were unanimously adopted.

Iowa State Teachers' College.—The "Report of an Inside Survey" (Bulletin of the Iowa State Teachers' College, April, 1917, 113 pp., 12 tables, 5 maps, and views, and Supplement of the Report, by President H. H. Seerley) is the result of the "protective measure" adopted by the faculty of the Iowa State Teachers' College after the institution had "been surveyed and surveyed by legislative committees, State boards, by the National Bureau of Education, by representatives of foundations and by self-appointed individuals notably curious, honest investigation and otherwise." The "inside survey" was made by a committee of seven members of the faculty, between March 1 and June 1, 1917, with the understanding "that it must be conducted from a different standpoint and with a different purpose" than the previous attempts. A committee of three laymen was designated "to read the report in manuscript" and to satisfy themselves that the facts therein stated were true. An effort was made to follow the survey outlines projected by the committee on normal school standards and surveys of the National Council of State Normal School Presidents and Principals in 1917;[1] but, it was soon found that a report limited to the points therein designated would not adequately represent "the motives, purposes, undertakings, evaluations, expenditures, requirements, capabilities and accomplishments" of the college.

The introductory sections (pp. 5–39) were prepared by H. H. Seerley. The report presents the findings of the several subcommittees on the following eleven topics: The organization of the Iowa State Teachers' College; the curriculums offered; length of time of the several curriculums; entrance requirements; graduation requirements and numbers; special subjects; the training school; qualifications of members of the faculty; salaries, teaching hours, student hours, cost per student hour; accounting and costs; normal school costs.

Illinois colleges.—In order to "discover such facts as would enlighten the church boards of education upon the relation of the church to the colleges and inform the colleges of their relation to each other," the Council of Church Boards of Education, comprising the boards of education of 18 denominations, authorized "A statistical survey of Illinois colleges," by Warren Brown, survey secretary, March 15, 1917, Chicago, Ill. (78 pp.). The data used in the survey

[1] See Addresses and Proceedings of the National Education Association, Portland, Oreg., 1917, pp. 383–387.

were collected between September, 1916, and February, 1917, through the Chicago office of the council. Statistical and graphic representation is given of the density of population of Illinois, geographic source of students, educational source of students, religious source of students, source of students socially; the overlapping of college territories; religious instruction; attendance and retention of students; professional distribution of graduates.

Something of the complexity of the situation involving higher education in Illinois is seen from the fact that in this State there are "37 institutions in addition to the junior colleges connected with high schools competing for patronage from the graduates of the four-year high schools." The questionnaire returns from 2,543 freshmen, about two-fifths of all the liberal arts freshmen in the State, show the following interesting results as to the reasons why they select particular institutions:

	Per cent.
Educational standards of the institution	27.0
Location of college near home	23.0
Influence of other students	11.0
Opportunities for self-support during course	7.3
Influence of college alumni	6.8
Church connection (same denomination)	5.6
Family or relatives connected with college	5.5
Religious life of institution	5.5
Social and athletic life of the college	5.1
Influence of field worker for college	2.5

University of Pittsburgh.—In order to secure a clearer vision of the institutional functions which the university could serve in its local community, the board of trustees of the University of Pittsburgh instituted a survey in 1915 which extended over a period of nearly two years. The wide ramifications to which this study led and the increasing complexity in which a university and its community stand mutually related led to the publication of "A New Basis for Social Progress," by William C. White and Louis J. Heath, December, 1917 (221 pp., Houghton Mifflin Co., New York). This volume is an interesting attempt to formulate principles for educational reorganization which shall bring about a more efficient coordination of the vocational needs of a modern community and the educational agencies within the community endeavoring to satisfy those needs. Present-day failures in education and in other human interests are traced chiefly to a lack of accurate knowledge which can come about only through continued analysis of conditions. Each community is living out a special characteristic life that needs to be studied in such a way as to show how a complete reconstruction of the entire educational system will be possible by abolishing the arbitrary lines drawn between the present branches of knowledge,

which are articulated into courses of study, and to allow for a "departmentalization" of knowledges with reference both to students' capacity and community needs. To this end, the authors propose "a municipal foundation for the study and advancement of community education," with a bureau of analysis, a bureau of statistics, and a bureau of supply. This foundation would carry on a continuous survey of community needs and community schooling, correlating the latter on a unit plan for the community. Among the general recommendations, it is proposed that such a foundation for the Pittsburgh community be placed in residence at the University of Pittsburgh.

NEGRO EDUCATION.

A monumental effort to encompass a survey involving the educational interests of about one-tenth of our population is permanently recorded in "Negro Education: A Study of the Private and Higher Schools for Colored People in the United States," prepared in cooperation with the Phelps-Stokes fund under the direction of Thomas Jesse Jones, specialist in the education of racial groups, Bureau of Education, in two volumes, 1917 (Vol. I, Bulletin, 1916, No. 38, pp. 411, 8 tables, 3 maps, 40 plates of illustrations; Vol. II, Bulletin, 1916, No. 39, 704 pp., 31 maps, 1 diagram). This important study grew from a suggestion made in November, 1912, by the trustees of the Phelps-Stokes fund, which provided most of its expense, and was conducted under the immediate direction of the Commissioner of Education. The regular staff of surveyors associated with the director included Thomas J. Woofter, Walter B. Hill, and Ocea Taylor. Special assignments were completed by William Hill, Mrs. T. J. Jones, G. S. Dickerman, Mr. and Mrs. A. H. Albertson, Ogden Purves, John H. Jinks, and Messrs. Bebbington and Higson, chartered accountants of New York. Cooperation was extended by the State superintendents of public instruction of the 15 Southern States involved, by the officers of the schools surveyed, and by the various supporting boards and agencies.

The purpose of the survey was formulated in terms of a long-felt and widespread need for accurate information that would enable one to decide "as to the merits and demerits of the many appeals for money and sympathy in behalf of all sorts and conditions of institutions for the improvement of the Negro." In realizing its original aim of recording an "evaluation of the private schools" for the education of colored people, the study makes a most important contribution towards stabilizing and protecting this necessary educational philanthropy.

The scope of the survey, accordingly, included: (1) All private schools for colored people, whether elementary or higher; (2) all

schools above the elementary grades, whether public or private. Reports are made on 790 individual schools and institutions, of which 625 are private schools, 28 State institutions, 64 public high schools, 3 city normal schools, 27 county training schools, and 43 special institutions (arranged geographically in Volume II). A "background" for the private and higher institutions was found in the public school system for Negroes. The information presented concerning each school includes: Characterization of the school; ownership and control; attendance; teachers and workers; organization; financial; plant; and recommendations. Three years were required to complete the undertaking; two, the school years of 1913–14 and 1914–15, being spent in the field work obtaining facts through personal visits to the institutions described; and one, 1915–16, to revisits and other verification of the data and the preparation of the report. A striking feature of the study is the attempt to support the qualitative evaluation by measurement. "For the purpose of this study it was found that the best available measure of public-school facilities was the relation between teachers' salaries, as given by the State superintendents, and the population 6 to 14 years of age, as reported by the United States census. Salaries * * * are the most accurately reported of all the school facts." This ratio as the per capita expenditure for white and colored children was determined for each county in the States of Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

The general discussion of the vast material collected on Negro education is presented in Volume I under these topics: General survey; public school facilities; secondary education; college and professional education; preparation of teachers; industrial education; rural education; ownership and control; educational funds and associations; financial accounts and student records; buildings and grounds by Mr. and Mrs. A. H. Albertson; history of Negro education, by George S. Dickerman; and freedmen's aid societies, 1861–1871, by Julius H. Parmelee. The appendix contains eight extensive tables of statistics of Negro schools.

Having performed its difficult task of discrimination, expressed in the constructive policy of recommendations regarding individual institutions, the study offers a large program of educational values in reorganization, in its proposal of a committee representing the various religious denominations to act wisely in the development of properly distributed and graded higher institutions, which should include two universities, three colleges, and junior colleges in 12 States for the Negro race.

Saskatchewan, Canada.—"A Survey of Education in the Province of Saskatchewan, Canada: A Report to the Government of the Province of Saskatchewan," by Harold W. Foght, specialist in rural school practice, Bureau of Education, Washington, D. C., Regina, 1918 (183 pp., 8 maps, 31 figs., 32 tables, and additional tables and appendix), is a unique contribution to survey literature. Preliminary discussion as to the need for a scientific study of the educational situation in Saskatchewan to serve as a basis for needed reorganization led to an order in council on June 7, 1917, for an educational survey. "This is probably the first instance on record of a Government extending an invitation to a citizen in the employ of another country to direct the study of its school system." The active field work was extended during three months from August to November, 1917. The director of the survey was assisted on special topics by W. Carson Ryan, jr., of the United States Bureau of Education. Cordial cooperation was extended by various provincial officials, officers, and teachers, and the public education league.

The topics presented include: Saskatchewan, the land and people; fundamental educational needs as indicated by the character and resources of the Province; the present educational system; school organization and administration; school inspection and professional supervision; school population, enrollment and attendance; organization and adaptability of the rural schools; consolidation of rural schools; rural high schools and continuation schools for adults; city, town, and village schools; high schools and collegiate institutes; the teaching staff; the normal schools; vocational education; separate schools; schools in non-English communities; the examination system; school hygiene and health inspection; school support, what the Province pays for education. The methods of inquiry included personal visits and the use of official data and records and questionnaire material. The study is doubly interesting to the student of the survey movement and educational progress because in making comparisons it utilizes the facts of education in the United States. Fifty-eight specific recommendations are made.

"Studies in Higher Education in Ireland and Wales with Suggestions for Universities and Colleges in the United States," Bulletin, 1917, No. 15 (115 pp.), and "Studies in Higher Education in England and Scotland with Suggestions for Universities and Colleges in the United States," Bulletin, 1917, No. 16 (276 pp., 14 tables), by George E. MacLean, are the reports of a special commission to the author by the Commissioner of Education in 1913. These studies are of special interest, made as they were during the years 1913–1915, and recording the changing situation in higher edu-

cation in England, Scotland, Ireland, and Wales. The aim of the author is "to point out facts and tendencies in higher education in England, Scotland, Ireland, and Wales, by which American universities and colleges can profit." The reports are based on visits to 76 institutions, including universities, university colleges, colleges, and technical and agricultural colleges and schools.

The topics presented in Bulletin No. 15 are: The Dublin University; Trinity College; the Catholic University; the predecessors of the National University; the National University; the three constituent colleges; the Queen's University of Belfast; the department of agriculture and technical instruction; movements preparatory for the University of Wales; the University of Wales; the royal commission and educational problems confronting it; summary of studies and suggestions.

The topics of Bulletin No. 16 are: First group of universities—Oxford, Cambridge, Durham; Scotch universities; University of London; the new or provincial university; independent university colleges—Exeter, Nottingham, Reading, Southampton; technical colleges and schools; agricultural colleges and schools; women's colleges; organization and administration of universities; university officers; provisions for the faculty; state aid and visitation; coordination of institutions; applied science and professional education; advanced study and research without graduate schools; examinations; curricula; student life; and university extension teaching.

MISCELLANEOUS.

"The Third Annual Conference on Educational Measurements," held at Indiana University, April 14, 15, 1916, Bulletin of the Extension Division, February, 1917, offers a constructive program which contributes to setting up standards for survey purposes as indicated by some of its special topics: Standard tests in the work of school administration and measurements applied to school financing, by E. P. Cubberley; survey of Gary schools and prevocational schools in New York City, by B. R. Buckingham; cost of instruction in Indiana high schools; and per cent of failures in high school, by H. G. Childs.

The "Fourth Annual Conference on Educational Measurements," held at Indiana University, April 20, 21, 1917, Bulletin of the Extension Division, April, 1917, gave further indication of the interpretation of, and benefits from, educational surveys in the addresses by G. D. Strayer: Significance and present status of the survey movement, and practical improvement in general school administration resulting from the school survey.

"Suggestive Studies of School Conditions, an Outline Study in School Problems for Women's Clubs, Parent-Teacher Associations, and Community organizations" (101 pp.), prepared by Janet R. Rankin and issued by C. P. Cary, Madison, Wis., 1916, shows some very interesting phases of school surveys at work. In its suggestions for the study of schools, it indicates by outline, bibliography, tables, and graphs, the approach by which the organizations named might consider the following topics: The school and the community; the school children; pupil health and hygiene; physical conditions; school beautification; the school library; the school-teacher; kindergarten; the lower grades, one to four; upper grades, four to eight; discipline and moral instruction; industrial work; recreation; the high school; higher educational organizations; school finances; the school exhibit. The suggestions close with an appendix on method of equipment and procedure.

The more elaborate organization of handbooks for conducting educational surveys is demonstrated in the educational survey series, Volume II, "Self-Surveys by Teacher-Training Schools," by W. H. Allen and C. G. Pearse, World Book Co., 1917 (202 pp.), and Volume III, "Self-Surveys by Colleges and Universities (with a Referendum to College and University Presidents)," by William H. Allen, World Book Co., 1917 (384 pp.). The former volume is an outgrowth of the survey of Wisconsin's eight normal schools made in 1914. "While this book speaks of normal schools, it is addressed to the whole family of teacher-trainers, including so-called normal schools, so-called county training schools, so-called high-school training classes, so-called college courses for teachers, so-called colleges of education, so-called graduate courses in education, so-called summer normal courses, so-called teachers' institutes, and in addition State departments of public instruction, State central boards of education, National Bureau of Education, and volunteer associations of educators, including foundations which deal with questions affecting normal-school ideals and methods." The topics discussed are: Reasons for self-surveys; pathfinding by Wisconsin's normal schools; steps in making a self-survey; making self-surveys build as they go; administration problems; course of study problems; supervision problems; classroom instruction, academic department; training department's training; extra-curricular activities of students; technique of reporting surveys; general needs of teacher-training schools; and exhibits.

The latter work also grew out of surveys, and while organized as "a handbook" it presents a searching discussion of survey methods that are capable of self-application by the different groups constituting a college or university. The analyses of all educational relationships are refined to the utmost and call for a yes-no type of

response. The nine main topics, the survey movement in higher education, procedure for a cooperative college survey, relation of trustees to president and faculty, executive and business efficiency, faculty government, extracurricular activities of students, course of study, instructional efficiency, and relation with college communities are analytically treated in the 122 sections. The faculty and alumni questionnaires in the University of Wisconsin survey are included in two exhibits of the appendix.

The diversification of the literature on educational survey is still further indicated in "Methods and Standards for Local School Surveys," by Supt. Don C. Bliss, D. C. Heather & Co., 1918 (pp. 264, 19 illustration charts, 153 tables, and bibliography). This manual designed for the use of a superintendent in studying his local school conditions, is the outgrowth of "constant use * * * of the reports of surveys conducted by groups of experts in different cities," and of separate investigations of educational problems. It serves the purpose of bringing into handy form "a definite chart for the would-be local surveyor." The functions of surveying in school administration are presented in the introduction by G. D. Strayer and the introductory chapter by the author. The guidance derived from the day-to-day experience of the superintendent in meeting school problems is apparent in the arrangement and treatment of the several topics: General conditions; organization and administration, the supervisory and teaching staff, salaries, pupils, efficiency of instruction; course of study and time schedule; the school as a social and community center; school buildings; school hygiene; school finance; planning for future needs. Two chapters offer assistance in the statistical interpretation and the graphical representation of data. The entire treatment culminates in a "survey outline," following the order of the topics treated. A special feature of the work is to be found in the inclusion of many of the standards and forms which have been determined for city systems which have been studied, thus facilitating the comparative use of data locally derived.

"Teacher Benefits for School Surveys," Educational Review of Reviews, No. 48 (24 pp.), was issued by the Institute of Public Service, New York City, to present the answers derived from a digest, prepared by Helen E. Purcell and Hiram H. Bice, of 30 survey reports to the following question: "What are classroom teachers getting from school surveys?"

The thirty-first annual meeting of the Association of Preparatory Schools and Colleges of the Middle States and Maryland, 1917, included the subject of educational surveys in its program, the discussions being presented by Clyde Furst and Samuel P. Capen (Proceedings, pp. 42–59).

"The Fruits of School Surveys," by Leonard B. Koos, School and Society, January 13, 1917, summarizes the responses of 18 out of the 25 city superintendents as to the results of the surveys conducted in their systems. Incomplete as these indications are, they "point to an emphatic justification of the survey movement and furnish encouragement for its extension."

"A Statistical Method for the Treatment of School-survey Data," by L. L. Thurstone, The School Review, May, 1917, offers technical suggestions for the graphic treatment of measurable material collected in an "auto" survey by a city school superintendent.

"College and University Surveys," by Francis A. Thomson, School and Society, June 23, 1917, discusses the surveys of single institutions and of State systems of higher education. J. A. Manahan has prepared a select list, with comment, of State, city, and county surveys, as a bibliography appearing in the University of Virginia Record, Extension Series, November, 1916 (pp. 54–62).

"A Plea for the Educational Survey," by Lawrence A. Averill, School and Society, February 16, 1918, is based on its four "more obvious values," and the claim "that the principle behind the educational survey is a sound one."

The bulletin of the University of South Carolina, No. 66, March, 1918, contains a discussion of school surveys by S. H. Edmunds.

The analytic account of the "Standard Tests used in School Surveys," by Ernest P. Branson, School and Society, December 14, 1918, covering 24 "typical surveys of a general character," shows that the tests were used in 16, the average number of tests used increasing annually at this rate: 1913, 1; 1914, 2; 1915, 4; 1916, 5; 1917, 8. The choices of tests used favored four in reading, two in handwriting, two in spelling, three in arithmetic, and three in composition.

UNPUBLISHED SURVEYS.

The following is a list of unpublished surveys:

Falls County, Tex., conducted by the Bureau of Education, the report being made to the local officers.

Bradley Polytechnic Institute, Peoria, Ill., conducted by the Bureau of Education.

Mobile, Ala., School Survey, 1916, conducted by the Bureau of Municipal Research of New York City.

South River, N. Y., conducted in the department of educational administration, Teachers' College, Columbia University.

Everett, Wash., conducted by Fred C. Ayer, with the aid of 20 teachers and principals, and designed as a survey of "a typical northwest city of 30,000 population," and conceived "from the social rather than the individual point of view."

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1918, No. 46

MEDICAL EDUCATION, 1916–18

By N. P. COLWELL, M. D.
SECRETARY OF THE COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION

[Advance sheets from the Biennial Survey of Education in the United States, 1916–1918]

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MEDICAL EDUCATION, 1916–18.

By N. P. Colwell, M. D.

Secretary of the Council on Medical Education of the American Medical Association, Chicago.

Contents.—Entrance requirements of medical colleges—Coeducation in medicine—Medical education and the war—Medical education and the selective service—A national control of medical education—Improved standards of licensing boards—State requirements of preliminary education—Confusion from multiple boards—Simplifying medical licensure—Practical and clinical examinations—National Board of Medical Examiners—Premedical college work—Need of a list of approved colleges of arts and sciences—Items concerning medical education—Developing medical education in China.

In previous reports attention was called to the rapid improvements in medical education in the United States, secured through a campaign which was begun by the American Medical Association in 1904. At the beginning of the campaign, the number of medical schools in this country exceeded the total in all the rest of the world. There was clearly an oversupply of medical schools. Many of them were poorly equipped and adhered only to low entrance requirements, while some were conducted for profit and required for admission little or nothing in the way of educational qualifications. It was shown that in 1904 only four medical colleges were requiring any college work for admission, and only from 20 per cent to 25 per cent were actually requiring a four-year high-school education. Under the methods pursued, it is not surprising, therefore, that in 1904 the number of medical students reached the amazing total of 28,142, and that in that year 5,747 physicians were graduated.

The campaign for improvement successfully urged the merging of two or more medical colleges in each of our various cities or States. This resulted in a rapid reduction in the total number, but a material strengthening of the quality of the institutions remaining. At the same time higher standards of preliminary education were urged consisting, first, of the four-year high-school education, then one year, and finally two years of premedical college education. In 1916 the two-year entrance standard was made an essential for any medical school to be considered as acceptable by the American Medical Association. In that year 48 colleges had already put into effect

the higher requirement and also 16 State boards had made it the minimum essential of preliminary education of graduates who might seek licenses in those States. Attention was also called to the great improvements in the way of full-time salaried teachers, greatly improved laboratories, the closer relations with teaching hospitals, and the securing of greater endowments.

At the present time there are 90 medical colleges; the number of students during 1917–18 was 13,630, and the number of graduates in 1918 was 2,670.[1] These lower figures represent the normal decrease that was expected under the increased entrance requirements, and are not due to the war. The following tabulation shows the decided increase since 1904 in the number of colleges which have enforced higher entrance requirements and in the number of students and graduates who have held the higher entrance qualifications:

Entrance requirements.	Colleges.				Students.				Graduates.			
	1904		1918		1904		1918		1904		1918	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Four-year high-school education or less [1]	158	97.5	7	7.8	26,391	93.8	631	4.6	5,378	93.6	258	9.7
One year of college work	------	------	34	37.8	------	------	5,944	43.6	------	------	1,147	43.0
Two years of college work	4	2.5	49	54.4	1,761	6.2	7,055	51.8	369	6.4	1,265	47.3
Totals	162	------	90	------	28,142	------	13,630	------	5,747	------	2,670	------

[1] It is not probable that in 1904 more than about 30 colleges (20 per cent) were actually requiring a four-year high-school education as a minimum for admission.

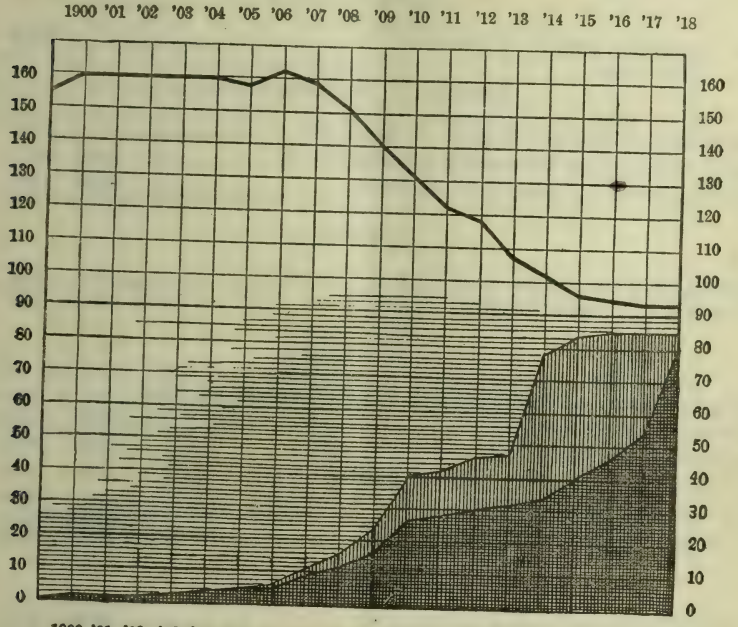
Instead of 4 (2.5 per cent) medical schools which in 1904 required any college work for admission, for the session of 1917–18 83 (92.2 per cent) medical schools required one or two years of such work; instead of only 1,761 (6.2 per cent) students enrolled in the higher standard colleges in 1904, during last year 12,999 (95.3 per cent) students were enrolled in the higher standard colleges; and instead of only 369 (6.4 per cent) graduates who were turned out by the higher standard colleges in 1904, at the end of last session 2,412 (90.3 per cent) graduated from those institutions. The 7 medical schools which still require only a high-school education or less for admission are also inferior in other respects, and are reported as not recognized by from 27 to 38 State licensing boards. The progress in medical education in respect to preliminary requirements is graphically shown in Chart 1. This general adoption by medical schools of the

[1] Altogether 2,807 students successfully completed the courses of the senior year. From 137, however, in the Universities of California and Minnesota and in Rush Medical College, the degrees have been withheld pending the completion of a hospital interneship.

two-year standard of preliminary education and the other improvements made have brought medical education in this country to a par with that of leading countries of Europe and elsewhere.

(CHART 1.—*Medical schools and entrance requirements.*)

This chart shows (heavy line at the top) the total number of medical schools existing in the various years. The chart also shows the number of medical schools requiring for admission (horizontal shading, indefinite, estimated) a four-year high-school education; (vertical shading) one year of premedical college work and (heavy shading) two years of premedical college work.



	1900	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18
Totals	160	160	160	160	160	158	162	139	151	140	131	132	118	107	106	96	95	94	94
Totals (a)	158	158	158	157	156	153	156	148	135	116	91	80	72	60	24	12	10	9	9
Totals (b)	..	..	..	..	..	..	1	2	5	8	13	14	16	16	44	44	38	31	6
Totals (c)	2	2	2	3	4	5	5	9	11	16	27	28	30	31	34	40	47	54	79

Requiring for admission (*a*) a high school education *or less;* (*b*) one year of college work; (*c*) two or more years of college work.

ENTRANCE REQUIREMENTS OF MEDICAL COLLEGES.

Eighty-one medical schools are now requiring, as a minimum for entrance, *two years* or more of work in a college of liberal arts in addition to a four-year high-school education. The years, respectively, when for each college the one-year and the two-year requirements became effective, and the rating of each college, are as follows:

	One year.	Two years.	College rating.
ALABAMA.			
University of Alabama School of Medicine	1914	1915	A
ARKANSAS.			
University of Arkansas Medical Department	1915	1918	B

	One year.	Two years.	College rating.
CALIFORNIA.			
College of Medical Evangelists	1914	1915	B
University of Southern California Medical Department	1914	1916	B
Leland Stanford Junior University School of Medicine		1909	A
University of California Medical School		1905	A
COLORADO.			
University of Colorado School of Medicine		1910	A
CONNECTICUT.			
Yale University School of Medicine		1909	A
DISTRICT OF COLUMBIA.			
Georgetown University School of Medicine		1912	A
George Washington University Medical School	1914	1918	A
Howard University School of Medicine	1910	1914	A
GEORGIA.			
Emory University School of Medicine, Atlanta	1914	1918	A
University of Georgia Medical Department	1914	1918	A
ILLINOIS.			
Chicago College of Medicine and Surgery School of Medicine of Loyola University	1915	1918	B
Hahnemann Medical College and Hospital	1914	1916	B
Northwestern University Medical School	1908	1911	A
Rush Medical College (University of Chicago)		1904	A
University of Illinois College of Medicine	1913	1914	A
INDIANA.			
Indiana University School of Medicine	1909	1910	A
IOWA.			
State University of Iowa College of Medicine	1909	1910	A
State University of Iowa College of Homeopathic Medicine		1910	A
KANSAS.			
University of Kansas School of Medicine		1909	A
KENTUCKY.			
University of Louisville Medical Department	1914	1918	A
LOUISIANA.			
Tulane University of Louisiana School of Medicine	1910	1918	A
MAINE.			
Bowdoin Medical School	1912	1916	A

	year. One	years. Two	rating. College
MARYLAND.			
Johns Hopkins University Medical Department		1893	A
University of Maryland School of Medicine and College of Physicians and Surgeons	1914	1918	A
MASSACHUSETTS.			
Boston University School of Medicine	1914	1916	A
Medical School of Harvard University		1900	A
Tufts College Medical School	1914	1918	A
MICHIGAN.			
Detroit College of Medicine and Surgery	1914	1918	A
University of Michigan Medical School		1909	A
University of Michigan Homeopathic Medical School	1912	1916	A
MINNESOTA.			
University of Minnesota Medical School		1907	A
MISSISSIPPI.			
University of Mississippi School of Medicine	1914	1918	A
MISSOURI.			
St. Louis University School of Medicine	1910	1918	A
University of Missouri School of Medicine	1906	1910	A
Washington University Medical School	1910	1912	A
NEBRASKA.			
John A. Creighton Medical College	1914	1918	A
University of Nebraska College of Medicine	1908	1909	A
NEW HAMPSHIRE.			
Dartmouth Medical School		1910	A
NEW YORK.			
Albany Medical College	1914	1918	A
Columbia University College of Physicians and Surgeons	----	1910	A
Cornell University Medical College	----	1908	A
Fordham University School of Medicine	1911	1918	A
Long Island College Hospital	1914	1918	A
New York Homeo. Med. Coll. and Flower Hospital	1915	1919	B
Syracuse University College of Medicine	1909	1910	A
University and Bellevue Hospital Medical College	1912	1918	A
University of Buffalo Department of Medicine	1914	1918	A
NORTH CAROLINA.			
Leonard Medical School	----	1914	B
Wake Forest College, School of Medicine	----	1908	A
University of North Carolina School of Medicine	1910	1917	A
NORTH DAKOTA.			
University of North Dakota School of Medicine	----	1907	A

	One year.	Two years.	College rating.
OHIO.			
Electric Medical College	1915	1918	B
Ohio State University College of Medicine	1914	1915	A
Ohio State Univ. Coll. of Homeopathic Medicine	1915	1916	B
University of Cincinnati College of Medicine	1910	1913	A
Western Reserve University School of Medicine	----	1901	A
OKLAHOMA.			
University of Oklahoma School of Medicine	1914	1917	B
OREGON.			
University of Oregon Department of Medicine	1910	1915	A
PENNSYLVANIA.			
Hahnemann Medical College and Hospital	1914	1917	A
Jefferson Medical College	1914	1917	A
Temple University Department of Medicine	1914	1918	B
University of Pennsylvania School of Medicine	1909	1910	A
University of Pittsburgh School of Medicine	1911	1913	A
Woman's Medical College of Pennsylvania	1914	1915	A
SOUTH CAROLINA.			
Medical College of the State of South Carolina	1914	1916	A
SOUTH DAKOTA.			
University of South Dakota College of Medicine	1908	1909	A
TENNESSEE.			
Meharry Medical College	1914	1918	B
Vanderbilt University Medical Department	1914	1918	A
University of Tennessee College of Medicine	1914	1918	A
TEXAS.			
Baylor University College of Medicine	1913	1918	A
University of Texas Department of Medicine	1910	1917	A
UTAH.			
University of Utah School of Medicine	1909	1910	A
VERMONT.			
University of Vermont College of Medicine	1912	1918	A
VIRGINIA.			
Medical College of Virginia	1914	1915	A
University of Virginia Department of Medicine	1910	1917	A
WEST VIRGINIA.			
West Virginia University School of Medicine	1911	1917	A
WISCONSIN.			
Marquette University School of Medicine	1913	1915	A
University of Wisconsin Medical School	----	1907	A

COEDUCATION IN MEDICINE.

The world war has given added impetus to the tendency on the part of medical colleges to throw their doors open to women students. During the last three or four years this action has been taken by several of the largest medical schools in the United States and Canada: In 1914 by the Medical School of the University of Pennsylvania; in 1915 by the Tulane University of Louisiana; in 1916 by the Columbia University College of Physicians and Surgeons; in 1917 by the University and Bellevue Hospital Medical College, by the University of Maryland, and the Medical College of Virginia; and in the present year by Harvard University Medical School and by the Medical Faculty of McGill University. The idea of granting equal opportunities for the two sexes in medical schools, however, had already made rapid advancement before the world war. Over 40 years ago the University of Michigan made its courses in medicine coeducational and practically all State universities have followed the example. From the time of its organization in 1893, the Medical Department of Johns Hopkins University has admitted women students. In New York City the Women's Medical College of the New York Infirmary closed its doors only after Cornell University in 1898 had established its medical school and admitted women students. In 1902 Rush Medical College, which had formed a close affiliation with the University of Chicago, became coeducational. At the present time, therefore, of the 90 colleges existing in the United States 60 admit both sexes.

MEDICAL EDUCATION AND THE WAR.

The reforms in American medical education were largely completed before this country was drawn into the world war. For the past six or seven years the majority of medical schools have not only been enforcing the higher entrance standards but also have been operating under greatly improved conditions in other respects. The majority of students graduating in the past several years, therefore, have received a medical training equal to that obtainable anywhere. Furthermore, it is these recent graduates who, in larger proportions, have entered the Government medical services and who will be largely responsible for the medical care of our American soldiers and sailors. It is evident, therefore, that those fighting for the preservation of America and American ideals now have as skilled medical care as is obtainable anywhere. That this can be said, is due to the energetic campaign to improve medical education that has been carried on during the past 15 years.

The war has affected the supply of physicians for civilian needs, even as it has reduced the supply of those in other technical occu-

pations. Statistics show that this country has one physician to every 739 people, as compared with one to every 1,500 to 2,500 people in the countries of Europe just before the war began. In recent years, however, the demand for medical graduates to fill positions as hospital internes, health officers, medical inspectors, medical teachers, and other positions of responsibility has been greatly increased. This increased demand is due, not to any scarcity of medical graduates, but to the improved qualifications of those now graduating from our medical schools. In earlier years this demand was not so great because few of the graduates then turned out were sufficiently qualified, educationally or professionally, to occupy the positions now open to them. The increase in the demand has been in direct proportion to the improvements in preliminary and medical education.

Even for the army there is a greater demand than in previous times for those of highly technical and special training. Educators are agreed, therefore, that present conditions call for the maintenance of the present entrance requirement of two years of college work; for further improvements in laboratory and clinical equipment; and, particularly, for improved methods of teaching in all medical schools. It is only by maintaining these fair standards that the demand will be supplied, since in the better medical schools, the number of graduates has steadily increased each year for the past five years, and the decrease in the total has been at the expense of the lower-grade colleges.

MEDICAL EDUCATION AND THE SELECTIVE SERVICE.

When the selective-service law was passed in May, 1917, it made no provision for the exemption of medical students. A study of the effect the draft would have on the enrollments of medical schools showed that from 50 to 65 per cent of the students would be taken in the first three calls, which would force the majority of medical schools to suspend. If the war lasted any considerable time, the result would be to seriously diminish or cut off the annual supply of medical graduates; hospitals would be without internes, and there would soon develop a serious shortage of physicians for both military and civilian needs.

The solution to the problem was found in the National Defense Act of 1915, which provided for the Medical Reserve Corps of the Army. Under the provisions of this law medical students were permitted to enroll in the Medical Enlisted Reserve Corps. This made them subject to call at any time should extreme emergency require it. It was the stated policy of the Government, however, to leave these students on an inactive status until they should com-

plete their medical course and secure their hospital training. It was believed that they could render the country a better service by finishing their training and becoming efficient medical officers than by entering at once on active service without that training. The provision for the Medical Enlisted Reserve Corps relieved the uncertainty in regard to the enrollment of medical students, so that medical classes have been retained at a normal status—the only loss being of those students who voluntarily enlisted for military service.

Provision was still necessary, however, for the students in the premedical classes who would arrive at draft age before becoming bona fide medical students. The calling into service of such students would prevent the medical schools from obtaining medical students and would eventually be as serious as if the medical students themselves were called to service. There also arose a serious problem as to medical teachers. Those in the draft age were being called into active service and others were volunteering, even though strong efforts were made to induce them to remain at their teaching duties. It appeared that many of the colleges would have to suspend because of the depletion of the ranks of their teachers.

In an effort to solve these problems, at the call of the Surgeon General, a conference of representatives of medical schools was held in Chicago June 11, 1918. At this conference an advisory committee on medical schools,[1] made up of representatives of medical colleges and licensing boards, was chosen to cooperate with the standing committee on medical education of the Medical Department of the Army, for the prompt solution of such problems as might arise in connection with medical education. At a meeting of the two committees on the day following the Chicago conference, attention was called to the provision made for the Student Army Training Corps, suggesting a solution for the exemption of premedical students. It was also urged that premedical and medical students as well as medical teachers be given Government recognition by being placed in uniform and that the teachers be granted suitable rank.

Another conference of the two committees was held in Washington, July 21, 1918. The arrangements for the Student Army Training Corps had made progress under the War Department's committee on education and special training. Through the Student Army Training Corps it was provided that all students enlisting be retained in

[1] This committee consisted of Dr. Ray Lyman Wilbur, president of Leland Stanford University, chairman; Dr. William J. Means, president of the Association of American Medical Colleges; Dr. Samuel W. Lambert, dean of Columbia University College of Physicians and Surgeons; Dr. J. Whitridge Williams, dean of Johns Hopkins University Medical Department; Dr. Theodore Hough, dean of the University of Virginia Department of Medicine; Dr. John M. Baldy, president of the Pennsylvania Bureau of Medical Education and Licensure; and Dr. N. P. Colwell, secretary of the Council on Medical Education of the American Medical Association, secretary.

the colleges until their special training be completed. On arriving at draft age, the student would be required to register under the selective service law. When called by his local board, each student's record would be examined and it would be determined whether he would be called in active service. The stated policy of the Government, however, was that students who were making satisfactory headway in their studies would be retained in college until their training had been completed. The Students' Army Training Corps clearly provided for the training of medical officers as well as of engineers and officers in other special lines. As to the threatened dearth of medical teachers due to losses by enlistment, a solution of the problem was found in the rule providing for the exemption of those engaged in "essential industries." Each college was requested by the Surgeon General to furnish a list of its essential teachers who, it was planned, would not be called to active duty even though they should enlist, but should be left at their teaching duties on the ground that they were engaged in an "essential industry."

A NATIONAL CONTROL OF MEDICAL EDUCATION.

Through the Medical Enlisted Reserve Corps, a large majority of the medical student enrollment throughout the United States has come under the control of the Surgeon General of the United States Army. This control of the student body, coupled with the measures made necessary to retain in each college an adequate corps of medical instructors, brought the medical schools also to a large extent under the same national control. It became necessary, therefore, soon after a state of war was recognized, for the Surgeon General to designate what medical schools were worthy of recognition and to establish rules for the satisfactory conduct of such colleges. Since the legal control of medical education had previously rested solely with State medical licensing boards, it was determined to consider as "well recognized medical schools" those which were recognized by the majority of State licensing boards. Of the 90 medical colleges now existing, 81 are well recognized.

The unusual demand for physicians as medical officers for the tremendous armies being organized made it necessary carefully to ascertain the present supply of physicians, the future annual output which should be maintained from the medical schools, and the educational standards and other measures which should be enforced, at the same time guaranteeing an adequate supply of physicians for civil and military needs. One of the earliest decisions rendered, which has since been adhered to, was that the present reasonable standards of preliminary education, namely, two years of work in an approved college of arts and sciences or its actual equivalent,

should be maintained.[1] In fact, this standard of premedical qualifications was considered sufficiently important that all "well recognized" medical schools were instructed to enforce that requirement of all students admitted on and after October 15, 1918.

Careful consideration has also been given to the question of requiring continuous sessions in medical schools so they might promptly and intelligently be put into effect should the emergency demand it. Looking toward this possibility a few of the medical schools which were properly equipped to do so, have already put that measure into effect.

IMPROVED STANDARDS OF LICENSING BOARDS.

In previous reports reference has been made to the adoption by State licensing boards of higher requirements of preliminary education. A review of the various medical practice acts, published during the present year, shows when any requirement of preliminary education was established in each State, and when, respectively, a four-year high school education or higher standards were adopted. The accompanying chart (Chart 2) shows the progress made during the past 18 years. In 1900, it appears that only six States had made provision for preliminary education in their practice acts and in only one of these was the standard fixed at a four-year high school education or its equivalent. Since 1900, however, progress has indeed been rapid, following closely the progress in entrance requirements of medical colleges. At the beginning of its campaign in 1904, the Council on Medical Education advocated two standards, one for immediate adoption which recommended a four-year high school course and another—the "ideal standard"—which suggested one year of college work including physics, chemistry, and biology. The latter was urged for adoption by January 1, 1908, but the time was extended till January 1, 1910, and was made a requirement for the Class A rating January 1, 1914. The charts show more marked changes in these than in other years. By 1910 the number of States providing for preliminary education had increased to 36, in 28 of which a four-year high school course was required. By 1910 when the Carnegie Foundation for the Advancement of Teaching published its report on medical education, marked improvements had already been made both by medical schools and by State licensing boards, but that report did much to arouse public interest in the campaign for improvement.

[1] To provide against a resulting shortage of medical officers, an intensive course of instruction for admission to the study of medicine was promulgated in October, 1918, by the committee on education and special training of the War Department. This course crowded into four quarters of three months each, or a total of twelve months, a quantity of work equal to that usually requiring six quarters of three months each. The continuation of this course was made unnecessary by the signing of the armistice.

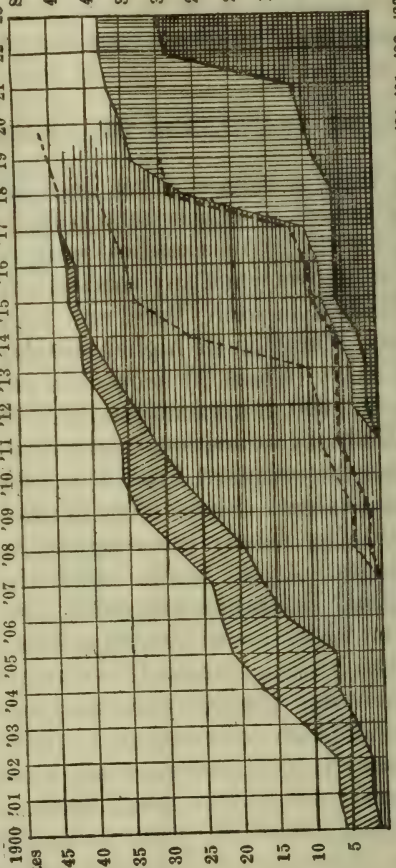
The light and heavy dotted lines indicate the number of boards each successive year which have *adopted* respectively one and two years of collegiate work in addition to a four-year high-school education as the minimum preliminary qualification for the license in those States. The increase in the number of States adopting the higher prelimi-

CHART 2.—*State requirements of preliminary education.*

As shown by Medical Practice Acts and Board Rules.

Showing by years the increased number of States requiring (diagonal shading) any preliminary requirement (horizontal shading); a four-year high school education (vertical shading); one year of college work, and (heavy shading) two years of college work.

The light and heavy dotted lines in the horizontal shading indicate, respectively, when the one-year and the two-year requirements were *adopted*—when they began to affect *matriculants* in medical schools. The requirements did not affect *graduates* until four years later, as indicated by the vertical and heavy shading. Each vertical line represents a year as indicated. (Compare this chart with Chart 1.)



	1900	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23
Any req't....	6	7	7	12	18	21	23	24	29	34	36	36	38	41	42	43	43	44	44	?	?	?	?	?
Less than h.s	5	5	5	8	11	14	9	7	10	10	8	5	4	4	4	2	1	..	1	..	..	..	..	..
4 yr. h.s....	1	2	2	4	7	7	14	17	19	24	28	31	30	33	34	34	34	34	18	..	..	..	..	..
1 yr. coll....	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	3	2	2	4	20	25	25	9	8
2 yrs. coll...	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	6	6	6	6	9	10	12	29	30

nary standards, as indicated by the dotted lines, corresponds quite closely with the increase in the number of medical colleges (see Chart 1) which had put those standards into effect. The dotted lines show when the requirements affected students matriculating in medical colleges; the increased requirements did not become effective for graduates until four years later· hence the portions of the chart

shown by the vertical and the heavy shading indicate for each year the number of States in which, respectively, one year and two years of college work were required of all applicants seeking licenses to practice in those States.

STATE REQUIREMENTS OF PRELIMINARY EDUCATION.

There are now 40 States which have adopted requirements of preliminary education in addition to a standard four-year high-school education. These States, the number of college years required, and the time the higher requirements became or become effective are as follows:

State requirements of preliminary education.

State examining board of—	One year of college work.		Two years of college work.	
	Affects students matriculating.	Affects all graduates.	Affects students matriculating.	Affects all graduates.
Alabama				
Alaska			1915–16	1919
Arizona	1914–15	1918	1918–19	1922
Arkansas	1914–15	1918	1918–19	1922
California	1915–16	1919	1918–19	1922
Colorado	1915–16	1919		
Connecticut	1908–09	1912	1910–11	1914
Delaware [1]	1911–12	1915		
District of Columbia [2]				
Florida				
Georgia	1914–15	1918	1918–19	1922
Idaho [2]			1918–19	1922
Illinois				
Indiana	1915–16	1919	1918–19	1922
Iowa	1910–11	1914	1911–12	1915
Kansas			1911–12	1915
Kentucky	1910–11	1914	1918–19	1922
Louisiana	1914–15	1918		
Maine	1915–16	1919	1918–19	1922
Maryland	1915–16	1919		
Massachusetts [2]	1914–15	1918	1918–19	1922
Michigan				
Minnesota	1914–15	1918	1918–19	1922
Mississippi			1908–09	1912
Missouri [1]	1915–16	1919	1919–20	1923
Montana				
Nebraska [1]	1914–15	1918	1918–19	1922
Nevada [2]				
New Hampshire				
New Jersey	1914–15	1918	1915–16	1919
New Mexico	1915–16	1919	1916–17	1920
New York	1914–15	1918	1918–19	1922
North Carolina	1917–18	1921	1918–19	1922
North Dakota	1914–15	1918	1918–19	1922
Ohio [1]			1908–09	1912
Oklahoma				
Oregon [2]	1914–15	1918	1917–18	1921
Pennsylvania				
Rhode Island	1914–15	1918		
South Carolina	1914–15	1918		
South Dakota			1918–19	1922
Tennessee	1908–09	1912	1916–17	1920
Texas	1916–17	1920	1911–12	1915
Utah	1914–15	1918	1918–19	1922
Vermont	1913–14	1917		
Virginia	1913–14	1917		
Washington	1914–15	1918	1918–19	1922
West Virginia	1914–15	1918	1917–18	1921
Wisconsin	1917–18	1921	1918–19	1922
Wyoming [2]				
			1915–16	1919

[1] Require a four-year high-school education or its equivalent. [2] No fixed standard.

CONFUSION FROM MULTIPLE BOARDS.

Besides the increase in the standards of preliminary education already referred to, much progress has been made by medical licensing boards during the last 18 years. In regulating the practice of the healing art, however, much confusion exists in some States because the authority to license those who are to treat the sick has been divided between two or more separate and independent boards. After excellent practice acts have been adopted, providing for fair standards of preliminary and medical education in these States, other laws are passed allowing certain groups of practitioners to secure licenses on lower educational standards. Some of these laws were secured through the misapprehension on the part of legislators regarding the first essential for the practice of the healing art, namely, the necessity of making a diagnosis, which implies a thorough training in the fundamentals of medicine. It is evident that unless a practitioner knows the difference between normal and abnormal conditions and unless he knows what particular disorder the patient is suffering from he is not in position to apply any kind of treatment. The plea of certain healers that they were "not practicing medicine" led to the adoption of special laws providing for the licensing of such practitioners under lower educational qualifications than were required of physicians, although in some States they were granted full authority to practice as physicians. Some of these laws provided for special boards without mentioning educational standards; others provided for lower educational requirements, while still other laws (or amendments) merely exempted these practitioners from the requirements of the medical practice act. So many different boards have been established that at present in the 50 States, including Alaska and the District of Columbia, there are 94 separate and distinct boards having to do with licensing those who are to treat the sick! There are 20 States which are fortunate in having only one board each—the State medical board. Including both medical boards and boards representing various "systems" of healing, there are 19 States having 2 boards each; 7 having 3 boards; 2 having 4 boards each, and 1 State—Arkansas—having 6 different boards. It can be seen at once that with the authority so divided it is impossible to provide efficient protection of the public against uneducated and incompetent practitioners of the healing art.

SIMPLIFYING MEDICAL LICENSURE.

State governments, however, are now trying to avoid a multiplicity of boards and at the same time to guarantee that all who are to treat the sick shall have secured an adequate education. Several States,

by legislation, during the past few years, have placed the licensing of all practitioners under a single medical board. Some States demand that all practitioners alike be required to possess the minimum educational qualifications, after which they are given a physician's license and may practice as they please. The most recent scheme in the licensing of those who are to treat the sick is that adopted in Illinois, through the new consolidation law. The Department of Registration and Education in Illinois has in charge not only the licensing of physicians and other practitioners of the healing art, but also dentists, pharmacists, midwives, and those in other licensed occupations. More encouraging, however, is the fact that the enforcement of the new law in Illinois has been placed in the hands of educators of unquestioned ability. It is noteworthy that even poor laws administered by able men bring better results than the best laws administered by inefficient men. The chief point to be considered in measures similar to that adopted in Illinois is to see that, to enforce the laws, those are appointed who will keep in close touch with the progress and needs of general and medical education.

PRACTICAL AND CLINICAL EXAMINATIONS.

There has been much improvement in the character of the licensing examination in some States. A larger number of States have established an efficient examination (including practical laboratory and clinical tests) of those who are to practice the healing art, and in this way they are better protecting the public from ignorance and incompetence. Educational and technical efficiency can not be accurately measured by a written examination alone. A student's fitness to intelligently diagnose and treat human disorders can be brought out only by testing his ability to differentiate between normal and abnormal conditions, in the laboratory as well as at the bedside.

An agency has recently been established—the National Board of Medical Examiners—which has been demonstrating how these practical and clinical examinations should be conducted. This board is now holding its examinations at frequent intervals in prominent hospitals in various large cities throughout the country, and members of State boards have been invited to attend them. The spirit and purpose of the examinations, as well as the ease and facility with which they are conducted, are so evident, that State board members will doubtless be encouraged to adopt them in the regular examination for licensing physicians.

NATIONAL BOARD OF MEDICAL EXAMINERS.

The National Board of Medical Examiners, just referred to, was organized in 1915. It consists of 15 members, including the Surgeon Generals of the Army, Navy, and Public Health Services, and one other representative of each of those services; three representatives of the State medical licensing boards, and six members appointed at large. Its establishment on a high plane was made possible by the Carnegie Foundation for the Advancement of Teaching, which made an appropriation of $15,000 per year to cover the expenses of the board until such time as it might be placed on a self-supporting basis.

Six examinations have been held by the board, the first and second at Washington, respectively, in October, 1916, and in June, 1917; the third at Chicago in October, 1917; the fourth at New York City in January, 1918; and the fifth at Fort Oglethorpe, Ga., and Fort Riley, Kans., in April, 1918. At these five examinations altogether 93 applicants were examined, of whom 72 passed and 21 failed, the percentage of failures being 22.6 per cent.

Date of examination.	Where held.	Total examined.	Passed.	Failed.	Percentage failed.
October, 1916	Washington	10	5	5	50
June, 1917	Washington	12	9	3	33.3
October, 1917	Chicago	28	22	6	21.5
January, 1918	New York	20	18	2	10
April, 1918	Fort Oglethorpe, Fort Riley	23	18	5	21.7
Total		93	72	21	22.6

The educational requirements of applicants are: (*a*) A four-year high-school course; (*b*) two years of acceptable college work, including courses in physics, chemistry, biology, and a modern language; (*c*) graduation from a medical school rated in Class A by the American Medical Association; and (*d*) a year spent in an acceptable hospital as an interne or in a laboratory. These requirements apply to graduates of medical schools in 1912 and thereafter. The board may accept equivalent credentials of applicants who graduated prior to 1912. Credentials must be presented to the board prior to the examination sufficiently early to permit investigation. The only fee is $5 for registration. There is no examination fee.

This board is a voluntary organization, its object being to conduct examinations of physicians so thorough as to prove without a doubt their qualifications for the practice of medicine. The value of its certificate, aside from being a qualification of merit, depends on the recognition given to it by State medical licensing boards. Such recognition has already been given, or assured, by the licensing boards of the 12 following States: Colorado, Delaware, Florida, Idaho, Ken-

tucky, Maryland, New Hampshire, North Carolina, North Dakota, Pennsylvania, Rhode Island, Vermont.

When the permanency of the national board is established and the high character of its examinations is more generally recognized, its certificates will doubtless be recognized by the licensing boards of a larger number, if not all States. It will also furnish a credential by which reciprocity in medical licensure with other countries may be established. A successful applicant may enter the regular medical corps of either the Army or Navy without further professional examinations if his papers are passed and are satisfactory to a board of examiners of those services.

PREMEDICAL COLLEGE WORK.

Since, in 1916, two years of work in an "approved" college had been so generally adopted as a minimum educational requirement for admission to medical schools in the United States, it became important to prepare a schedule of the subjects taught in the first two years of recognized colleges which would best prepare the student for his subsequent medical work. A circular letter was sent out by the Council on Medical Education to presidents of one hundred or more of the leading universities, as well as to registrars and university examiners, who were skilled in the evaluation of credentials of work done in various educational institutions. In this way an abundance of data was collected. A special committee was appointed to study the problem and to develop a schedule of required and elective subjects which make up the 60 semester hours required, and to have this schedule conform as nearly as possible with the regular curricula of colleges of arts and sciences. The committee which was selected and began the work in 1916 and was ratified by the council in February, 1917, is as follows:

Dr. Kendrick C. Babcock, Urbana, Ill., chairman, formerly specialist in higher education of the United States Bureau of Education; now dean of the college of liberal arts and sciences of the University of Illinois and intimately identified with the work of the North Central Association of Colleges and Secondary Schools and the Association of American Universities in standardizing colleges of arts and sciences.

Prof. George Gailey Chambers, director of admissions, University of Pennsylvania, Philadelphia, representing the Association of American Universities.

Dr. W. F. R. Phillips, professor of anatomy of the Medical College of the State of South Carolina, Charleston, representing the Association of American Medical Colleges.

Dr. Theodore Hough, dean of the University of Virginia Department of Medicine, Charlottesville.

Dr. N. P. Colwell, secretary of the Council on Medical Education of the American Medical Association, Chicago.

A preliminary report of this committee was prepared and published in August, 1917. It was presented for discussion at the annual

congress on medical education and licensure which was held in Chicago in February, 1918, following which the committee completed this report which, as finally adopted, is as follows:

I. HIGH-SCHOOL REQUIREMENTS.

(*a*) For admission to the two-year premedical college course, students shall have completed a four-year course of at least 14 units (15 after Jan. 1, 1920) in a standard accredited high school or other institution of standard secondary school grade, or have the equivalent as demonstrated by examinations conducted by the College Entrance Examination Board, or by the authorized examiner of a standard college or university which has been approved by the Council on Medical Education. Unless all the entrance units are obtained by examination, a detailed statement of attendance at the secondary school, and a transcript of the student's work, should be kept on file by the college authorities. This evidence of actual attendance at the secondary schools should be obtained, no matter whether the student is admitted to the freshman or to higher classes.

(*b*) Credits for admission to the premedical college course may be granted for the subjects shown in the following list and for any other subject counted by a standard accredited high school as a part of the requirements for its diploma, provided that at least 11 units must be offered in Groups I–V:

Schedule of subjects required or accepted for entrance to the premedical college course.

Subjects.	Units.	Required.
GROUP I, ENGLISH—		
Literature and composition	3–4	3
GROUP II, FOREIGN LANGUAGES—		
Latin	1–4	2
Greek	1–3	
French or German	1–4	
Other foreign languages	1–4	
GROUP III, MATHEMATICS—		
Elementary algebra	1	1
Advanced algebra	½–1	----
Plane geometry	1	1
Solid geometry	½	----
Trigonometry	½	----
GROUP IV, HISTORY—		
Ancient history	½–1	1
Medieval and modern history	½–1	
English history	½–1	
American history	½–1	
Civil government	½–1	
GROUP V, SCIENCE—		
Botany	½–1	----
Zoology	½–1	----
Chemistry	1	----
Physics	1	----
Physiography	½–1	----
Physiology	½–1	----
Astronomy	½	----
Geology	½–1	----

Subjects.	Units.	Required.
GROUP VI, MISCELLANEOUS—		
Agriculture	1–2	----
Bookkeeping	½–1	----
Business law	½	----
Commercial geography	½–1	----
Domestic science	1–2	----
Drawing, freehand and mechanical	½–2	----
Economics and economic history	½–1	----
Manual training	1–2	----
Music: Appreciation or harmony	1–2	----

NOTE.—A unit is the credit value of at least 36 weeks' work of four or five recitation periods per week, each recitation period to be not less than 40 minutes. In other words, a unit represents a year's study in any subject in a secondary school constituting approximately a quarter of a full year's work. A satisfactory year's work in any subject can not be accomplished under ordinary circumstances in less than 120 sixty-minute hours or their equivalent.

Both of the required units of foreign language must be of the same language, but the two units may be presented in any one of the languages specified.

Of the 14 units of high-school work (15 after Jan. 1, 1920), 8 units are required, as indicated in the foregoing schedule; the balance may be made up from any of the other subjects in the schedule.

II. PREMEDICAL COLLEGE COURSE.

(*c*) Beginning January 1, 1918, the minimum requirement for admission to acceptable medical schools, in addition to the high-school work specified above, will be 60 semester hours of collegiate work, extending through two years, of 32 weeks each, exclusive of holidays, in a college approved by the council on medical education. The subjects included in the two years of college work should be in accordance with the following schedule:

Schedule of subjects of the two-year premedical college course.

(Sixty semester hours required.)

Required subjects:	Semester hours.
Chemistry (a)	12
Physics (b)	8
Biology (c)	8
English composition and literature (d)	6
Other nonscience subjects (e)	12
Subjects strongly urged:	
French or German (f)	6–12
Advanced botany or advanced zoology	3– 6
Psychology	3– 6
Advanced mathematics, including algebra and trigonometry	3– 6
Additional courses in chemistry	3– 6

Other suggested electives:

English (additional), economics, history, sociology, political science, logic, mathematics, Latin, Greek, drawing.

NOTE.—A semester hour is the credit value of 16 weeks' work consisting of one lecture or recitation period per week, each period to be not less than 50 minutes net, at least 2 hours of laboratory work to be considered as the equivalent of one lecture or recitation period.

SUGGESTIONS REGARDING INDIVIDUAL SUBJECTS.

(*a*) *Chemistry.*—Twelve semester hours required (eight until January 1, 1920) of which at least eight semester hours must be in general inorganic chemistry, including four semester hours of laboratory work. In the interpretation of this rule work in qualitative analysis may be counted as general inorganic chemistry. The remaining four semester hours (required after January 1, 1920) may consist of additional work in general chemistry or of work in analytic or organic chemistry.

(*b*) *Physics.*—Eight semester hours required, of which at least two must be laboratory work. It is urged that this course be preceded by a course in trigonometry. This requirement may be satisfied by six semester hours of college physics, of which two must be laboratory work, if preceded by a year (one unit) of high-school physics.

(*c*) *Biology.*—Eight semester hours required, of which four must consist of laboratory work. This requirement may be satisfied by a course of eight semester hours in either general biology or zoology, or by courses of four semester hours each in zoology and botany, but not by botany alone. The requirement may also be satisfied by six semester hours of college biology or zoology, of which three should be devoted to laboratory work if preceded by a year (one unit) of high-school biology or zoology.

(*d*) *English composition and literature.*—The usual introductory college course of six semester hours, or its equivalent, is required.

(*e*) *Nonscience subjects.*—Of the 60 semester hours required as the measurement of 2 years of college work, at least 18, including the 6 semester hours in English, should be in subjects other than the physical, chemical, or biologic sciences.

(*f*) *French or German.*—A reading knowledge of one of these languages is strongly urged. If the reading knowledge in one of these languages is obtained on the basis of high-school work, the student is urged to take the other language in his college course. It is not considered advisable, however, to spend more than 12 of the required 60 semester hours on foreign languages. In case a reading knowledge of one language is obtained by 6 semester hours of college work another 6 semester hours may be well spent in taking the beginner's course in the other language. If this is followed up by a systematic reading of scientific prose a reading knowledge of the second language may be readily acquired. When a student spends more than two years in college he may well spend 12 semester hours of his college work in the second language.

NEED OF A LIST OF APPROVED COLLEGES OF ARTS AND SCIENCES.

The most imperative present need in medical education in the United States is a reliable list of colleges of arts and sciences which has been approved by some competent standardizing agency. This

is especially needed if the present standards of education preliminary to the study of medicine are to be properly enforced. There are a thousand or more institutions in this country bearing the name of "college" or "university" which vary widely in their entrance standards; in the number and character of their teachers; and in the quantity and quality of their instruction. They range from the highest educational institutions to be found in any country down to the institutions which are entirely lacking in educational merit or which may be actually engaged in the sale of diplomas. Prospective college students at present have no reliable list to guide them in the selection of a college. They are frequently at the mercy of those who insert pretentious advertisements in popular magazines or flood the mails with circulars setting forth in glowing terms the merits of their respective schools when, as a matter of fact, such schools may have no moral right to be referred to as educational institutions.

Lists of approved colleges have been established by two prominent educational organizations—the Association of American Universities and the North Central Association of Colleges and Preparatory Schools which are fairly reliable so far as they go. The former association, however, has not taken into consideration a large number of colleges and "junior colleges" which are in position to furnish a satisfactory training in the subjects included in the first two years of college work. The latter does include such institutions, but, unfortunately, its jurisdiction covers only 17 States. The Association of Colleges and Preparatory Schools of the Southern States, which covers 14 other States, requires a minimum standard of the colleges in membership and is about to establish a list of approved colleges similar to that of the North Central Association. Then its list of approved colleges will doubtless include a much larger number than are at present indicated in its membership. There is need of reliable standardizing agencies which will establish lists of approved colleges in 7 Western States and in 10 North Atlantic[1] and New England States. It is hoped that such agencies will soon be inaugurated, that all the agencies will be affiliated or merged so as to establish uniformity of standards, and that a nation-wide list of approved colleges may be established. In the investigations to be made hereafter by all these standardizing agencies, in the interest of a better medical education, it is hoped that special attention will be given to the equipment and facilities available for the teaching of the essential premedical sciences, physics, chemistry, and biology, including both didactic and laboratory instruction.

[1] It is announced that the Association of Colleges and Preparatory Schools of the Middle States and Maryland has decided to establish a list of the approved colleges and junior colleges located in that district.

ITEMS CONCERNING MEDICAL EDUCATION.

Arkansas.—The new Isaac Folsom Clinic, clinical building of the University of Arkansas Medical Department, has been completed at a cost of $35,000. The old medical school building is being equipped as an isolation hospital at a cost of $6,000, this sum having been appropriated for the purpose by the State.

California.—The College of Physicians and Surgeons, Medical Department of the University of Southern California, Los Angeles, will require the hospital interne year for all students entering during 1918–19 and thereafter.

The College of Medical Evangelists during the last 12 months has established its clinical department in Los Angeles. A city block has been purchased on which five buildings including a 75-bed hospital, a dispensary, two dormitories, and a hydrotherapy building have been completed at a cost of approximately $100,000.

A school for the intensive training of medical officers for the United States Army was established in San Francisco, March 15, 1918, under the direction of the medical faculties of the University of California and Stanford University.

Colorado.—The Colorado Legislature voted a special appropriation of $150,000 a year for the next 10 years to be used on buildings for the University of Colorado. The school of medicine will secure new buildings from this fund.

Connecticut.—During the past year Yale University has secured an endowment of $2,500,000 for placing the departments of medicine, surgery, obstetrics, and gynecology on a full-time clinical basis. A contract with the New Haven General Hospital gives the medical school complete control of the public wards.

Yale University School of Medicine is doing its part in solving problems connected with the war. Its departments of physiology, pathologic chemistry and pathology, particularly, have been aiding the Government in providing gas masks for the American troops and in conducting experiments leading to the reduction of fatalities from gas warfare.

Georgia.—Emory University School of Medicine has received $5,000 by the will of J. B. White, Augusta, to establish a camp for the treatment of tuberculosis.

Illinois.—University of Illinois College of Medicine, Chicago, has adopted the quadramester system by which each 12 months is divided into terms of four months each. Under this arrangement students may begin the study of medicine at the beginning of any one of the three terms.

Indiana.—The Indiana University School of Medicine is erecting a new medical building on the property adjoining the Robert W.

Long Hospital, Indianapolis, at an approximate cost of $400,000. The new building will consist of four or five stories and be of material harmonizing with the hospital buildings. About $150,000 of this sum will be realized from the sale of the old medical building.

Maryland.—The Maryland Legislature, at its recent session, appropriated $25,000 annually for two years for the University of Maryland Medical School. The medical school has received as a gift the medical library and surgical instruments of the late Dr. Charles F. Bevan. The medical school has also voted to admit women students.

Johns Hopkins Hospital has received $100,000 from the will of Jennie Gillender and $300,000 from the estate of James Buchanan Brady.

Massachusetts.—Harvard Medical School has voted to admit women students. This has been due to the heavy draft of the war on the medical profession.

Boston University School of Medicine announces that it has become nonsectarian and will offer courses in regular materia medica, therapeutics, and practice.

Michigan.—The Detroit College of Medicine and Surgery has been taken over by the city of Detroit and placed under the control of the board of education. It will hereafter be maintained as a municipal institution.

Minnesota.—A Navy Hospital Corps Training School has been established in connection with the University of Minnesota Medical School. It was formerly opened on October 29, 1917, with an initial attendance of 100 men.

Nebraska.—The University Hospital, erected on the campus of the College of Medicine of the University of Nebraska, was formerly opened in October, 1917. It consists of 120 beds and was erected at a total cost, for the building and equipment, of $210,000. A new library building, an exact duplicate of the present library unit, is being erected on the medical campus which will house the department of physiology, pharmacology, and biochemistry. The funds were provided by the legislature which also appropriated $100,000 for maintenance for two years.

New York.—Columbia University College of Physicians and Surgeons has added a fifth clinical year to the medical course to be required of all students matriculating in and after September, 1918. The college has also opened its doors to women students. This was made possible by a gift of $50,000 from George W. Breckenridge, San Antonio, Tex., and a gift of $5,000 from an association of women physicians, and $18,000 from other donations. A new building for the use of women students will be erected and additional laboratories provided.

Cornell University Medical College has established a clinic for the functional reeducation of disabled soldiers, sailors, and civilians. This constitutes practically a new branch of medicine.

Long Island College Hospital, Brooklyn, has received $265,000 from the estate of Charles W. West.

University of Buffalo Medical Department has begun a campaign for funds for a new medical building and laboratories. A gift of $10,000 has been obtained to go toward current expenses for the year.

Ohio.—University of Cincinnati College of Medicine formally dedicated its new medical college building on March 25, 1918. Subscriptions were raised for this building aggregating $555,000.

On January 1, 1918, under the new charter for Cincinnati, all of the medical and scientific nursing work of the Cincinnati General Hospital was placed under the direction of the University of Cincinnati. The staff will be made up of members of the medical school faculty and secures for teaching purposes the facilities of the hospital.

Oklahoma.—The legislature appropriated $200,000 for a State hospital at Oklahoma City, to be under the control of the Oklahoma University School of Medicine. The building is rapidly approaching completion. The school of medicine has completed a new chemistry building at Norman, which has now been completed at a cost of $33,000.

Oregon. —The University of Oregon Medical School dedicated Mackenzie Hall, the first unit of the new group of medical buildings, on May 1, 1918. The building was erected at a cost of $117,000. It is on the new campus of 21 acres which provides space not only for other medical school buildings, but also for hospital sites.

Pennsylvania.—The University of Pennsylvania has received $50,000 from the will of Dr. William C. Goodell. The board of review has awarded damages of $714,000 to the University of Pennsylvania for the old Medico-Chirurgical College and Hospital property taken by the city. The Medico-Chirurgical property had been transferred to the University of Pennsylvania with the merger two years ago.

The University of Pittsburgh School of Medicine is receiving $100 annually from the Pennsylvania Association for the Blind to be used as a prize to the member of the senior class who writes the best essay on the prevention of blindness.

Tennessee.—Meharry Medical College dedicated the new Anderson Anatomical Hall on October 19, 1917. The $10,000 used in its erection was the gift of Dr. John W. Anderson, of Dallas, Tex.

Texas.—During 1917 an attempt by Gov. Ferugson to secure political control of the University of Texas and its medical department

aroused a vigorous protest. A special session of the legislature was called; Gov. Ferguson was impeached; an appropriation of $1,629,407.17 for the university, including $197,500 for the medical department, which Gov. Ferguson had vetoed, was again passed; and three regents of the university named by Gov. Ferguson were replaced by those selected in the interests of the university.

Virginia.—The Medical College of Virginia has voted to admit women students. A new three-story hospital building is to be erected as a part of the new group of buildings for the Memorial Hospital. This first building will cost about $40,000 and will be used for contagious diseases. The money was donated by Maj. James H. Dooley.

Wisconsin.—The University of Wisconsin has received gifts amounting to $100,000, which, with an appropriation of $50,000 from the legislature of 1917, will be used to construct a new infirmary for the medical school.

Marquette University School of Medicine is conducting a campaign to raise $1,000,000 for endowment. Andrew Carnegie has agreed to give one-third of this sum provided the university raises the balance. The first evening of the campaign $175,000 was raised. A gift of 1,000 volumes to be added to the library has been received from the late John L. C. Cronyn, of Buffalo.

DEVELOPING MEDICAL EDUCATION IN CHINA.

In the spring of 1914, the China Medical Commission, representing the Rockefeller Foundation, was sent to China "to inquire into the condition of medical education, hospitals, and public health in China." This commission recommended Peking as the place where the first medical educational work should be organized. The China Medical Board was then organized, which took over the property of the Peking Union Medical College. The terms of the transfer provided for a board of trustees consisting of 13 members, one to be appointed by each of the six missionary organizations previously maintaining the college, and seven by the China Medical Board. Full support of the college was assumed by the China Medical Board on July 1, 1915.

The Peking Union Medical College was founded early in 1906 by various American and English boards of missions, following the Boxer outbreak. Substantial contributions toward the building fund were obtained from the Empress Dowager of China. The Chinese language was the medium of instruction. The college rendered valuable service in 1910–11 in connection with the serious outbreak of pneumonia and the epidemic of the plague. As a result of their work three members of the college staff were decorated with the Order of the Double Dragon. The college staff also rendered valu-

able military surgical work with the Imperial forces during the revolution of 1911.

The announcement of the new Peking Union Medical College, Peking, China, for the session of 1918–19, has recently been sent out. It contains a perspective view of the new medical school and its group of hospital buildings. These, when completed, will consist of 17 buildings, connected by covered corridors, and will occupy the space of about four city blocks. All but four of these buildings and two prospective wings of the medical school have already been completed. A premedical school was opened in September, 1917, and the medical school will be open for students in September, 1919. Graduation from an approved middle school of China, or its equivalent, in addition to 108 credit (semester) hours of college work, is required for admission. The premedical work includes courses in English, Chinese language and literature, algebra through quadratics, plane geometry, biology, chemistry, physics, Chinese and universal history, and drawing. The teaching year begins September 17 and will end June 20 of the following year. The announcement contains floor plans of the various college and hospital buildings.

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SECONDARY EDUCATION

By

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TEACHERS COLLEGE, COLUMBIA UNIVERSITY

[Advance sheets from Biennial Survey of Education in the United States, 1916–18]

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SECONDARY EDUCATION.

By THOMAS H. BRIGGS,
Teachers College, Columbia University.

CONTENTS.—**Character of school reports**—Growth of high schools—The small high school—Consolidation and coordination—Larger use of the school plant—The high schools and the colleges—Failures and marks—Retardation, attendance, and elimination—High-school pupils—High schools for negroes—Secondary school teachers and principals—The tenure of teachers and principals—The training of teachers and principals—Supervision of instruction—Extension of function of high schools—The war and secondary schools—Farm service by high-school pupils—Military training in high schools—The future of the nigh school.

CHARACTER OF SCHOOL REPORTS.

A study of a large number of school reports, from both States and cities, reveals an astonishing variety in the size, the audience addressed, the content, and the use made of them. The size varies from pamphlets of a few pages to volumes of several hundred. In a number of instances a long report is published in several small sections, thus effecting economy and also insuring attention that might be repelled by a formidable volume. The audience is the board of education, the teachers, superintendents of other States or cities, the public at large, or nobody in particular. It would seem that in every case the persons to whom the report is addressed would be known, first of all, for their interests or needs should determine the contents of the report. It is difficult to see why any school reports should contain portraits of the members of the board of education, programs of the high-school graduating exercises, expressions of acrimony between school officers, unsubstantiated statements of "a most successful year," lengthy minutes that properly are recorded in the secretary's book, or complete unclassified details of expenditures. It is doubtful if most of the tediously gathered statistics can be justified when they occupy three-fourths of a report and are accompanied by no interpreting text and no indications that they have been or will be used.

When a report is definitely addressed to the public, it very properly contains general statements of progress, explanations of new features in the schools—such as supervised study and the longer school day or of extra-curricular activities—and arguments concerning the value of secondary or higher education. Supt. Stark, of Hackensack, N. J., in addressing the public, prefaces his detailed

report by a summary of his recommendations of the preceding year, a list of the accomplishments during the year, and recommendations of what should be done in the future. A report addressed to the public may properly also present data concerning the high-school teachers—their preparation, experience, etc.—facts showing the holding power of the school, the percentage of failures, the size of classes, the cost of each subject per pupil, and the like, provided the tabulations are interpreted and an appeal is made that a proposed program of improvement be supported. It is certainly not economical to include in one volume for general circulation different kinds of material, each being of interest to only one of several audiences addressed. Of the State publications concerning high schools, it is not invidious to mention as peculiarly helpful for various reasons those from California, Illinois, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, South Carolina, and Wisconsin.

GROWTH OF HIGH SCHOOLS.

The State reports for the biennium contain less about the increase in the number of high schools than they have done for a number of years past. Especially in the older States and in the younger ones that have done most by way of educational advance there are justifiable expressions of pride that opportunities for secondary education are in the reach of the greatest majority of youth. The growth that is more emphasized is in the number of pupils and in their persistence in school. There are a number of expressions of opinion that no high schools should be established or maintained at the expense of the elementary grades and that in the secondary schools already established effort should be made to secure respectable work of higher quality. Typical of these expressions may be quoted the following passage from the fourteenth biennial report of the State superintendent of public instruction of Montana:

> While everything possible has been done and is being done to encourage high-school work in all schools equipped to do the work, and while the principals of the larger high schools have been most generous in their willingness to cooperate with these schools that are taking care of the boys and girls at home, it seems that a note of warning must be sounded or some districts in their zeal for high-school work will do their schools more harm than good.
>
> In the first place, many schools have asked teachers not well qualified to teach the ninth grade subjects, which is an unwise thing, for no instruction is often better than the wrong kind of instruction. Other schools hiring but one or two teachers have endeavored to start high-school classes. The best that can be said of the work carried on under these conditions is that it overworks the teachers, robs the boys and girls in the elementary grades at the very time when they are forming their like or dislike for the public school, and cheats those who think they are getting high-school work when they are not, and who believe that they are saving time when they are actually losing it. Still other schools with the number of teachers necessary to start high-school work fall short by trying to care for too many courses or too many

studies in one course, forgetting that thorough work in a few branches is better than slipshod efforts in many.

In planning for the best interests of the school, it must be remembered that a first-class elementary school means a good deal more to any community than a poor high school, and no attempt should be made to finance high-school work until grounds, buildings, and equipment are what they ought to be, and something in the way of music, drawing, industrial work, domestic science, and community activities have been provided for the grades.

The valuation of the school district should also be considered, and until this is what it should be, the thought of the first-class graded school with suitable equipment and a permanent and fully accredited high-school course can not be fully considered, for in the long run, carrying on a school of that kind is not a question of enthusiasm, of sentiment, or of need, but one of dollars and cents with which equipment can be provided and teachers paid.

When the proper valuation is in sight, whether it has been secured by consolidation or otherwise, the first year of the course best adapted to the needs of the community in which the school is located should be taken up and strictly adhered to until sufficient teaching force can be employed to carry on additional work.

The State inspector of high schools for South Carolina is even more emphatic and pointed in his remarks:

One of the first weaknesses a stranger would detect in the high-school system in South Carolina would be our small number of four-year schools in places amply able to support them, and the attempt of a few small places to support four-year schools with too few pupils and too little money. The number of the latter class is small, but of the former class there are too many. To maintain a four-year school there are three things necessary: Enough pupils to justify its existence, enough money to employ the teachers and to equip the school, and a community that appreciates such a school.

From the point of view of attendance it seems reasonable to hold that any three-year school with as many as 75 pupils is well able to maintain a fourth-year class. Seventeen of our schools last year had enrolled 1,816 high-school pupils going out with a three-year high-school education. Admittedly, those going to college are not prepared as they should be, and certainly those leaving school are entering life with meager equipment.

From the point of view of expense a few words ought to suffice. In September, 1916, these 17 schools sent from their third-year classes 194 pupils to college, one year behind the preparation required by high-grade colleges. In other words, these pupils went to college to get their fourth-year high-school training. At the conservative estimate of $250 each, these pupils cost their parents $48,000 for the privilege of sending their children away from home to get what they should have had at home. Worse still, it cost more to keep these 194 pupils at college a year than the 17 schools paid for teaching the entire high-school enrollment of 1,816. All this takes no account of the large number of boys and girls whose education closed with the third year of the high school. Why will people persist in such waste and folly? Once we heard that ancient alluring phrase about "saving a year at college," but surely thinking people are no longer caught with such bait.

The people of this State have had so little practical experience with well-equipped four-year high schools that they do not appreciate their value. For long years we have known nothing higher than a three-year high school resting upon a seven-year elementary school, and the people have come to look upon such a school as ideal. In fact, one occasionally hears the argument that such a school is enough for any people. Such advice reminds one of Æsop's unfortunate tailless fox. If the study of pedagogy has taught us anything, it has convinced us that we can not force the

growth of the human plant. It requires time for the human plant to grow and mature. When we consider the comparatively small number of men and women with a college education, and the even smaller number with a four-year high-school education, we begin to understand the limitations of our people intellectually, industrially, and economically. South Carolina's having more college graduates than four-year high-school graduates furnishes amusement for everybody but us. We have not yet seen the amusing side of the situation.

In another part of his report Inspector Hand explains how the unfortunate condition came to exist in South Carolina, and recounts the changes in the law made in an attempt to remedy earlier mistakes. In 1907 South Carolina passed a law appropriating $50,000 to develop high schools.

Although the terms upon which State aid was offered to the individual schools were liberal, of the $50,000 appropriated for the scholastic year 1907–8, only $27,960 was used. Only 56 schools could be induced to take advantage of the new law. In the law was a clause granting to the trustees of a high school accepting State aid the power to levy a local high-school tax not to exceed 2 mills on all the taxable property of the district. In most instances local boards had to promise not to levy this tax before the people would vote for the establishment of a high school. It is interesting to note how many districts then reluctant to empower their trustees to levy a 2-mill tax have since voted 4, 6, 8, and even 10 mills for school support. In 1908–9 only $44,295 of the State appropriation was used.

Apprehensive lest the towns and the cities might get an undue proportion, if any part, of the State appropriation, the general assembly put into the first law an unfortunate clause forbidding the use of any of the appropriation in a school district containing an incorporated place of over 1,000 population. Small places with few pupils and small revenue were the only places encouraged by the law. The consequences might have been foreseen. These small places were prompted to undertake the impossible, to establish high schools without resources to maintain them. In order to put 2 teachers and 25 pupils, the minimum requirements, into the high schools, numbers of places crippled their elementary departments for years. To remedy this defect the law was amended so as to permit a high school of 1 teacher and 15 pupils to share in the State appropriation. Again the consequences ought to have been foreseen. Every school of 3 teachers that could possibly find 15 pupils for the high-school grades wished to become a high school. Not infrequently a high-school teacher would be found with 15 pupils, often fewer, while the 2 teachers in the lower grades would have from 30 to 50 pupils each, occasionally more.

Between 1907 and 1917 fifty-eight places undertook to maintain high schools, but gave them up.

At the beginning of the year 1916–17 all the one-teacher high schools were put into the rural graded school class, and the appropriation for that class of schools was increased. So far as making any contribution to a permanent system of high schools, the State's money spent on these one-teacher schools was a total loss. It was an expensive experiment financially, and one that had a deadening effect far worse than the mere financial waste. The one-teacher high schools put an immediate check upon all efforts at building up high-grade high schools at central points to serve small surrounding schools. The one-teacher high schools undertook the work of three and four teacher high schools, and parents seemed satisfied with the attempt.

Meantime the general assembly had, after a hard struggle, amended the law by increasing the maximum population limit from 1,000 to 2,500. With the census of 1910 twenty-five of the largest high schools in the State were debarred from any participation in the State high-school fund, although any high school receiving any of this

fund had to give free tuition to any high-school pupil from that county. Year after year the lawmakers were urged to repeal this clause, but without success until 1916, when an entirely new law was substituted. The new law is much simpler than the old one. The population limit is entirely removed, a high school must have at least 2 teachers and 25 high-school pupils, the district must levy at least 4 mills local school tax for running expenses, any high-school pupil can without tuition attend any State-aided high school in his own county or an adjoining county, and the State appropriation was increased to $80,000 annually. The immediate effects of the enactment of the new law will be referred to in another place in this report.

State Inspector Walker, of North Carolina, recognizing the weakness in his State of the small, weak high schools, proposes a policy that should control them:

> There is needed a comprehensive policy, a plan backed by law, that will recognize in some way all worthy high schools operated at public expense, city and rural, and that will make possible the development of good high schools where high schools are needed and prevent the multiplication of weak high schools where high schools are not needed. It is impossible to build up an efficient high school in every cross-roads community. It becomes necessary to concentrate our efforts in each county at a few centers where there is a quickened school interest, intelligence, and available means, all of which are necessary to the development of schools of the right kind. It might be advisable to extend State aid to all well-organized and well-managed four-year high schools of the cities and towns that admit pupils to the high-school grades from the country districts, State aid, of course, to be given under the requirements of the public high-school law and primarily on the basis of attendance from outside the local district. This matter, I think, is worthy of serious consideration.
>
> The State appropriation should, in a word, be used for four important purposes: (1) To stimulate counties and communities to initiate new and necessary lines of work which they would not be likely to undertake of their own accord, as, for example, putting in courses in home economics, agriculture, and teacher training; (2) to encourage counties and communities to inaugurate new and necessary policies, which they would not be likely to put into practice if left without direction, as, for instance, putting the high-school principals on salary the year round; (3) to encourage schools to maintain higher standards of excellence, as, for example, lengthening the school term, organizing the work on a sounder basis, employing better teachers, paying better salaries, etc.; (4) to equalize in some measure opportunities for high school training by helping to support good high schools where they are needed in counties and communities that have not the funds necessary to maintain good high schools.

THE SMALL HIGH SCHOOL.

It is a matter of judgment that many small high schools are generally doing poor work, but State Inspector Williams, of Indiana, has measured the product of the small and of the large high schools by their records in college.[1] Indiana has 94 public high schools for every 100,000 persons of school age, approximately two and a quarter times as many as New York, its nearest rival. "Of the 850 officially recognized high schools in Indiana, 51 per cent have fewer than four teachers and 71 per cent have fewer than five teachers." Thirty students from these small high schools and 85 from large high

[1] Educator-Journal, 18: 233–238.

schools had the following distribution of marks in the freshman year at Indiana University:

Percentage of marks.

	Small high schools.	Large high schools.
A	1.65	12.06
B	11.41	31.23
C	33.01	31.32
D	23.93	13.09
Conditioned	14.58	8.68
Failure	15.26	2.69

Inspector Williams found similar results in seven other Indiana colleges. Principal Smith, in his survey of Illinois high schools, however, found no such difference between the graduates of small and large schools. Whether the slight inferiority of the small high school in Illinois is due to the fact that in this classification are all schools enrolling up to 100 pupils or to other causes is not known.

Of course the academic success of those pupils who become college students is not the only criterion of the value of a high school. A multiplicity of small high schools certainly increases the number of pupils who enter upon secondary education; disregarding tradition, they may be adapted so as to satisfy peculiar local needs, and they may be made junior high schools and affiliate with a central school which will complement their work, or each one may form a nucleus which later may develop into something larger and more satisfactory. Mr. Williams, in his study, shows that in sections of Indiana abundantly supplied with high schools, small and large, the ratio of secondary school enrollment to the entire school enumeration is from two to four times as large as when the number of high schools is small.

The alternatives proposed for improvement are (1) a reduction and adaptation of the offerings by small high schools and (2) consolidation. The commissioner of secondary schools for California writes:

> In planning the course of study for small high schools it is not necessary to include all the subjects or courses taught in larger high schools. The law requires that the high school offer one course of study that will prepare graduates therein for admission to the State university. It does not require that the high school offer courses that will prepare graduates therein for admission to all of the colleges of the State university.

The State inspector of North Dakota writes similarly:

> Most high-school programs are too full. Too much is attempted, especially in the smaller high schools. Such a plan makes the limited teaching force attempt too much, and results in a lowered quality of work. In most small schools the superintendent or principal has to do so much class room work that he has neither time nor ambition to give the kindly, helpful, thoughtful counsel and assistance to the teachers both of

the grades and the high school which is so essential to good, satisfactory work. Many times the remedy is in the hands of the teachers themselves. Small classes could often be eliminated and some subjects alternated with profit to all.

In Vermont Commissioner Hillegas and in New Hampshire State Superintendent Morrison have consistently and cogently worked to make the small high schools contribute first of all to the assured needs of the pupils who are likely to have no further education. It should be remarked that in both States emphasis is laid on cultural as well as on the more immediately practical training.

CONSOLIDATION AND COORDINATION.

Consolidation in some cases, as in Vermont and Tennessee, carries with it a system of abbreviated or junior high schools, and in others, as notably in Illinois, an enlargement of territory to support a cosmopolitan high school. The program proposed by the Vermont survey has been improved and developed there, and the State superintendent of Tennessee writes:

Until the la t legislature we did not have a compulsory high-school tax. We now have a 5 cent high-school tax levied by the State in every county. Until this last year we had, where they had a high school tax, one centralized high school with disorganized inefficient secondary schools which you no doubt well remember. These schools never had a course of study or any regulations. As a result they began nowhere and lead nowhere.

he last legislature passed a law providing for a centralized four-year high school with as many two-year high schools established over the county as may be necessary to bring the first two-years of the high-school work within reasonable reach of all parts of the county. The course of study in these schools is the same as the first two years in the centralized first-class school. This gives us a splendid high-school system.

The State inspector of high schools for South Carolina, in reviewing the conditions in each district in his State, repeatedly makes such recommendations as the following:

A——— and B——— ought to put aside their petty local pride and unite in establishing a high school that might be the righteous pride of both places. Both districts would save money, and have such a school as neither alone can ever hope to have.

In C——— the school has struggled hard under difficulties. An 8-mill tax for expenses brings in too little money from rural property returned at low valuation. Salaries are low, and the school is housed in a very inferior building. The school would be better off as a rural graded school.

Inspector Williams concludes the study previously quoted with the following paragraphs of recommendation:

The writer proposes, as the highest type of aid by the State, either that in operation in California, where provision is made for separate and special taxation for the support of high schools, or that in effect in New Jersey, where the general school tax is drawn upon for a special apportionment to high schools. In the one case, the annual high school levy is determined by multiplying the number of pupils in average daily attendance by $15—a State-wide tax of approximately 1½ mills. In the other, the special apportionment is made to high schools on the basis of $100 for every teacher employed

and of a fixed sum per pupil per day of actual attendance. Some such system in Indiana would prove a powerful stimulus to the maintenance of standard conditions and equalize the high-school facilities in every part of the State.

Fortunately, Indiana school law has made notable progress in the direction indicated. Legal provision exists for union or consolidation of the following varieties:

(1) Joint high schools. On the petition of a definite number of legal voters of two or more school corporations, an election must be called to determine the desirability of maintaining a joint high school. If favorable, the two corporations may unite in one of the following combinations:

(*a*) Joint town (or city) and township high school. In this case, cost of maintenance is apportioned in proportion to the taxables of each corporation, and the school is managed by a joint board.

(*b*) High-school district. A city (of any class) or incorporated town may establish and maintain jointly with one or more contiguous townships (or portions thereof) a high school district. Maintenance and management as before. Provision is made for voluntary withdrawal at any time from the arrangement by any member of the district.

(*c*) Joint township high school. Two adjoining townships, having a combined taxable valuation of three quarters of a million dollars ($750,000), may establish and support a joint high school, provided no high school already exists in either corporation and eight or more pupils have graduated from the common schools in each of two previous years.

(2) Consolidated high schools. Under similar conditions, a town or fifth class city and the adjacent township may consolidate two or more existing high schools. Two plans of management are provided:

(*a*) A new board consisting of the township trustee and two persons chosen by town or city council—one of these a resident of the city or town and the other of the township outside.

(*b*) A joint board composed of the township trustee and secretary of the school board, with appeal to the county superintendent.

Thus ample legal sanction exists for communities to combine resources and unite for high grade working conditions.

As is well known, Illinois has gone further in the establishing of consolidated high schools than any other State. The story of the development of its township high schools, a type that might well be adopted in other sections of the country, is told by University Visitor Hollister in Bulletin 25, 1917, of the United States Bureau of Education, and many interesting data are presented in Principal Smith's Survey of Illinois High Schools. The law permitting the organization of a high school in contiguous territory regardless of political boundaries, under which nearly 200 new schools were established, was in 1917 declared unconstitutional; but the next legislature promptly passed a better act. Of the present situation State Supt. Blair writes:

All of the territory of a county not included in a recognized high-school district is considered nonhigh-school territory. A board is elected within this nonhigh-school territory and levies a tax to pay the tuition of all eighth-grade graduates residing within the nonhigh-school territory. An unusual and most effective plan is provided for taking care of the two and three year high schools. In many of our mining villages and smaller communities the people desiring to keep their children at home during the first years of the high-school course sought to maintain a high school and an elementary school on the one tax of 1½ per cent on the assessed valua-

tion of the property. In almost every instance it was found that to maintain such a high school meant the shortening of the elementary school, the lowering of the wages paid the teachers and the consequent reduction of elementary-school opportunities. Now, this new law places all recognized two and three year high schools within the nonhigh-school territory. All of the funds within these local two and three year high-school districts is to be used for the elementary schools and they are taxed with the rest of the district for the payment of the tuition of all the eighth-grade graduates within the nonhigh-school district. All the children attending these two and three year high schools have their tuition paid out of this fund. If a two-year high-school district has 20 pupils enrolled, it receives 20 times the per capita cost of maintaining the high-school courses. If a three-year high school has 35 pupils, it receives 35 times the per capita cost of maintaining the high-school courses, all paid out of the nonhigh-school tuition fund. You will note that the provisions for forming community high-school districts is much better safeguarded than under the law of 1911, which was declared unconstitutional by the supreme court.

In Kentucky adjacent counties have been given the privilege by the legislature of combining for the establishing and maintaining a joint high school covering a territory larger than the single county as an educational unit. The congressional district high schools of Georgia are well known. And in North Carolina there are the farm-life schools. Of these State Supt. Joyner says in his recent report:

Since the amendment to the farm-life school law, allowing any county that will provide the required equipment and an annual maintenance fund equal to the amount received from the State to avail itself of the State appropriation not to exceed a maximum of $2,500 for instruction in agriculture, sewing, cooking, household economics and other farm-life subjects in connection with one or more of its rural high schools, 9 new farm-life schools have been established during the biennial period, making a total of 21 such schools in 17 counties of the State. No part of the annual maintenance fund for these schools or of the funds for their necessary equipment is allowed to be taken out of the regular school funds and to shorten the regular public-school term until those funds are sufficient to provide a minimum of six months. The significant and hopeful fact about their establishment through the cooperation and sacrifice of the people of the communities in which they are located is the evidence that it furnishes of intense interest in the education of country boys and girls for country life, and of the faith of the country people in a sort of education and school that can and will provide better preparation for more profitable, more comfortable, more healthful, more joyous, and more contented living in the country.

The progress of centralized schools in North Carolina and the program for the future is set forth as follows:

Under the law and the rules adopted by the State board of education not more than four of these schools can be established in any one county. No public high school can be established except in connection with a public school having at least two other teachers in the elementary and intermediate grades, and the entire time of at least one teacher must be devoted to the high-school grades. No public high school can be established in a town of more than 1,200 inhabitants.

Each district in which a public high school is established is required to duplicate by special taxation or subscription the amount apportioned to the school from the State appropriation; each county is required to apportion to each public high school

out of the county fund an amount equal to that apportioned to it out of the State appropriation. The minimum sum that can be apportioned annually from the State appropriation for the establishment and maintenance of any public high school is $200 and the maximum sum $600. The total sum annually available for any public high school established under this act ranges, therefore, from $600 to $1,800. The high-school funds can be used only for the payment of salaries of the high-school teachers and the necessary incidental expenses of the high-school grades.

There are now from one to four public high schools in each of 96 counties of the State. There are therefore four counties in which no public high schools have yet been established. For the proper maintenance and development of these high schools more money will of course be required.

It is our hope to be able to select the best high school in each county, taking into consideration the location, the accessibility, the environment, etc., and develop this into a real first-class county high school, doing thorough high-school work for four full years and some vocational work in agriculture, sewing and cooking, and other rural-life subjects. Around this school should be built a dormitory and a teachers' home. The dormitory, properly conducted, would afford an opportunity for the boys and girls from all parts of the county to board at actual cost. Many of these could return to their homes Friday evening, coming back Monday morning. Many of them who do not have the money to spare to pay their board would probably be able to bring such provisions as are raised on the farm and have them credited on their board at the market price. A small room rent could be charged each student. The principal's home would make it possible to secure a better principal and keep him probably for years, thereby giving more permanency to the school and more continuity to the work, making a citizen of the teacher and enabling him and his family to become potent factors in the permanent life of the community, contributing no small part to uplifting it, morally and intellectually, by their influence. Then the other high schools in different sections of the county should be correlated with this central school, and the course of study in these should be limited probably to not more than two years of high-school work, requiring all students desiring to pursue the last two years of the four-year course to attend the central county high school, which will be fully equipped in all respects for thorough high-school work.

Thirty-nine of these public high schools now have 46 dormitories, in which more than 18 per cent of the county high-school pupils secure board at actual cost and pay for it in money or in provisions at the market price.

That the effect of consolidation has not everywhere proved satisfactory is evidenced by the following quotation from the 1917 report of the inspector of high schools in Minnesota. There for several years a law has been in force making possible the affiliation of a number of rural schools with a central school of 12 grades, one superintendent overseeing all the work.

As a State-wide policy, association of rural schools with a central school as a means of improving the rural schools is not satisfactory. The superintendent of a village or city school system is, by training, experience, and lack of first-hand interest, unsuited to the task of supervising rural schools. The exception proves the rule. Withdraw State aid for association, and the entire fabric which has been building for eight years would fall to pieces. In few places has it brought lasting good to either party to the contract. The villages and cities will never succeed in making over the rural school or otherwise materially improving rural-life conditions. Like the rest of us the farming people must and will work out their own salvation. The great benefits which we expected from association were to come as the result of closer and more skillful super-

vision. But, with a few notable exceptions, we have accomplished nothing for the improvement of the rural school and have wrought injury to the central school itself by scattering the time and interest of the superintendent over too large and diversified a field.

It should be evident to even a casual reader that all programs for consolidation more or less tend toward a centralization of authority. Whenever funds are supplied from a central source, direction of work naturally follows. Repeatedly in the report are found "the course of study as outlined or approved by this office," and similar phrases. No theme was more frequently or emphatically presented at the Atlantic City meeting of the Department of Superintendence than the necessity of State and Federal aid to schools in order not only to equalize the opportunities for education but also to safeguard the interests of the larger political and social units. The tendency and the underlying sentiment toward centralization are strong; before induration they should be carefully and fully considered as part of the new national program.

LARGER USE OF THE SCHOOL PLANT.

Another tendency manifested in the reports of the biennium is toward a more complete use of high-school buildings. The marvelous increase in registration during the past years has made it obvious to the observant that even the ambitious building program could not long satisfy the demands upon it. Now, partly because of the great enrollment in secondary schools and partly because the war has very generally put a stop to new construction, there are numerous reports, especially in eastern cities, of high-school buildings being occupied more or less all day by two or more platoons of pupils. This duplicate use of high-school buildings is found very generally in New York City and also in Schenectady, Jamestown, and Erie, N. Y.; New Haven, Conn.; Paterson and Jersey City, N. J.; Chelsea, Mass.; Kansas City, Mo.; and Dallas, Tex. Many cities report that in the high-school building are held public meetings of various kinds; in Stamford, Conn., for example, during 1916–17 there were in the high-school building for the public 15 lectures, 39 receptions, 18 entertainments, 22 civic meetings, and 8 "other functions," with an estimated total attendance of 16,900. More and more high-school buildings are open for evening schools, for summer schools, and for other activities during the vacation months. The Washington Irving High School in New York City, for example, during the summer of 1918 was used as a regular academic summer high school; as a school to fit adult women for Government service; as a recreation center, using the gymnasia and roofs for play and dancing and the assembly hall for concerts; as a community forum, where various groups met for the discussion of public questions; and as quarters for university extension courses.

THE HIGH SCHOOLS AND THE COLLEGES.

Less than formerly is being said about college entrance requirements, partly because the colleges have, from time to time modified their demands, partly because a larger number of high schools, usually the small or the weak ones, attempt for all pupils nothing but what is required for entrance to college, and partly because many other secondary schools are differentiating their work, preparing some pupils for college and others for the immediate demands of society. The most significant changes regarding college entrance during the biennium were probably the new requirements of four prominent women's colleges of the East and the decision of the North Central Association of Colleges and Secondary Schools, in the territory of which is 55 per cent of the high school population, not to participate further in the National Conference on Uniform Entrance Requirements. It is stated that now not more than 15 per cent of the students who enter college do so by passing admission examinations.

The criticism by colleges of the high schools and their work has been very neatly turned by Inspector Hand, of South Carolina, in his annual report for 1917:

> Much has been said and written in recent years about the increased requirements for college entrance. The requirements have been increased. But there is another side to the matter—one that is very rarely mentioned. What advance has been made in the standards of the colleges beyond the entrance requirements? How much higher grade of work is the freshman class doing? How much higher grade of work is the senior class getting? A close comparison of some of your catalogues for 1909–10 with those for 1916–17 reveals a curious, if not incongruous, state of affairs. Colleges that have within that time almost doubled their published entrance requirements are doing almost the same work they did seven years ago. For illustration, take the subjects that are fairly well graded, such as mathematics, Latin, and English. In numerous instances the wording describing these courses has not been changed in years. In many instances the textbooks have not been changed. In others the textbooks have been changed only as to authors. In still others considerable changes have been made in the freshman and sophomore work with very few in the junior and senior work. This situation explains how pupils from ordinary four-year high schools are still getting into the sophomore class with discouraging frequency.

He goes on to point out that all of the 15 colleges of South Carolina that "require" 14 units for admission are not justified in so doing by either their own work or by that of the high schools of the State, and that in the freshman class of these colleges there are 146 per cent of the number of pupils in the fourth year of high schools in the State in the preceding year. Fully one-half of the freshmen entered *on condition.*

> Your patrons and the public have a right to know just how these conditions are removed. In how many hours do you work off two units of conditions requiring in the high school 240 sixty-minute hours? Who does the work and in what manner is it done? Show the public in your catalogues how it comes about that a 12-unit student with two units to make up can graduate on schedule time with the 14-unit

students without hurt to either. What effect is the plan going to have on the maintenance of four-year high schools? It is already telling against them.

The criticism is quoted at length because of its pertinency to conditions in several other States as well.

There is evidence of an increasing effort by the high school to inform elementary pupils of its offerings and opportunities. Some cities (e. g., Milwaukee) publish handbooks for the information of eighth-grade pupils; and many others (e. g., Decatur, Ill., and Dallas, Tex.) publish similar handbooks that are distributed to the incoming freshmen in order that they may quickly adjust themselves to new conditions. In Cleveland, Ohio, the seniors in different high schools are reported to have visited the eighth grades from which they came and there to have made brief talks on the benefits of high-school education.

Data in numerous reports indicate the growth of a more critical attitude of schoolmen toward their work. Statements of "impressions" and of untested experiments are more and more giving way to records substantiated by standard measures and by definite figures. Because of the complexity of the aims in secondary school subjects, few standard measures have so far been developed; but in several surveys and city reports are the scores of high-school pupils in spelling, in composition writing, in reading, and in algebra; the Ayres, Hillegas, Kansas or Thorndike, and Monroe or Rugg and Clark measures being used. When the purposes of each phase of secondary education have been more clearly defined, we may expect the development of tests adequately to measure accomplishments of all kinds.

FAILURES AND MARKS.

It is interesting to note the concern that is now being taken by school administrators with failures and school marks. The academic studies concerning these topics, startling and disappointing as they have always been, are now being applied widely to reveal information that will lead to the improvement of school work. El Paso, Tex., Stamford, Conn., Paterson, N. J., Topeka, Kans., and Altoona and Johnstown, Pa., are cities that have published in their annual reports studies of failures in their high schools. Supt. Cary included in "Education in Wisconsin" a study by Jeanette Rankin of the number and per cent of pupils dropped, failed, and promoted in 75 high schools of the State. This is the most comprehensive of recent studies. It shows that for the 75 high schools 10 per cent of all the student-hour work was dropped and 9 per cent failed. As usual, the worst records were during the first year, in the more conventional subjects, and by the boys.

A study of the marks recorded by subjects and by teachers frequently leads to a revision of the marking system. The story of how this happened in one school is interestingly told by Supt. Camp, of

Stamford, Conn., in his report for 1917, and afterwards more elaborately in the School Review. The weighting of marks so that they will give qualitative as well as quantitative credit seems to be widely accepted, and individual schools report that the plan when used has given satisfaction. In Chicago Supt. Shoop recommended shortly before his death that credits of increasing weights be given by the high schools for the subjects from freshman to senior. This would be a variation of a rather widespread practice of denying a pupil the privilege of taking for credit any academic subject listed in the curriculum more than one year above or below the class in which the pupil is.

RETARDATION, ATTENDANCE, AND ELIMINATION.

Closely related to a consideration of failures and marking systems are the studies of retardation, attendance, elimination, the source of high-school pupils, and the immediate destination of the graduates. Age-grade tables have for a number of years been common in reports on the elementary schools; they are now appearing with increasing frequency in the sections concerning the high schools. The worth of such a study is determined, of course, by what results from it; there is no apparent value in merely collecting and publishing the figures. One superintendent very properly is pleased with the number of over-age pupils in the high school, as he had made a special effort to recruit for further study young men and women who had prematurely left school for work; another administrator would with equal propriety be so disturbed by such a showing as to make a study of the efficiency of the grammar grades. Several schools report the number of pupils who are present for different proportions of the semester, but not one of them correlates the data with the facts concerning success in school work, and not one of them presents any program for improving the attendance.

One of the most pleasing results of the secondary school development is its increased holding power. In scientific studies the term "persistence" is replacing "elimination." The losses between the beginning of the ninth grade and graduation, however, are still very large. Pickell and Winkelblech, using a rough measure, have showed that in the States the highest percentage of the freshman class to be in school four years later is 54, in Indiana; the lowest, 17, in the Carolinas. For the United States the percentage is 38. In New York City, where a large number of pupils are said to enter the high schools to await the time when they may secure working papers or to ascertain by sampling whether they will like the work or not, the percentage is as low as 21. Supt. Cary reports that in 1916 the enrollment of Wisconsin high schools was distributed as follows: Special students, 1; freshmen, 34; sophomores, 29; juniors, 20; seniors, 16. Of the 16 seniors, 14 graduated.

Inspector Meredith records the progress of the class entering New Jersey high schools, as follows:

Year.	Grade.	Number.	Per cent.
1914	IX	16,998	100
1915	X	11,057	65
1916	XI	8,072	47
1917	XII	6,502	32

El Paso, Tex., La Crosse, Wis., Paterson, N. J., Topeka, Kans., and other cities present tables showing the number and percentage of elimination by semesters and by causes; and Kansas City, with its efficient bureau of measurements, publishes a comparative table that contains the approximate percentage of all pupils entering the public schools who complete the high-school course in 17 cities. The range is from 7.3 and 7.4, for Newark and New York, to 25.8 and 25.9, for Portland, Oreg., and Seattle. "In 1891," the Kansas City report continues, "only 4 per cent of our pupils who entered the elementary schools completed the high-school course, but in 1917 this per cent had increased to 19.8." The Kansas City report for 1917 also shows the percentage of high-school pupils dropped annually from 1900 to 1917. The median percentage for the 19 years is 20.1, with a probable error of 1.1; however, the average for the last 9 years is 19.4, or 1.4 per cent less than that for the first 9 years of the period.

HIGH-SCHOOL PUPILS.

In "Education in Wisconsin," we are told the source of high-school pupils. In the whole State—where, by the way, 17 per cent of all city pupils are in high school, as compared with 7 per cent of all country pupils—63 per cent of the pupils entering secondary schools in 1915–16 come from local city elementary grades, 2 per cent from the elementary grades of other cities, 7 per cent from State graded schools, 18 per cent from rural schools, and 10 per cent from private and parochial schools. Of the graduates in 1915–16 of the eighth grades of Wisconsin, 46 per cent entered high school from the rural schools, 41 per cent from the State graded schools, 85 per cent from the village grades, and 85 per cent from the city grades. These figures, while encouraging as indicative of progress, show that there is still much to be done even in such favored communities to equalize opportunities for secondary education. Such information should be had for many cities and States, so that a new national program may be soundly based on facts.

No less important than the source of our high-school pupils is what becomes of them immediately after they graduate. The most complete recent study seems to be that in the Des Moines Public

School Pupil and Employment Vocational Guidance Bulletin No. 2, 1916. In this we are given a summary of the study of 380 graduates of the public high schools in 1914, supplemented by a tabulation of the overambitious plans of the senior class for their immediate future, of the occupational distribution of the parents of children attending high schools, and of what the employers of graduates have to say about them. Other tabulations of the occupations of parents of high-school pupils are given by Thorndike and by Koons in Educational Administration and Supervision. Those who believe that the primary duty of the schools is to prepare their pupils to perform better the desirable activities that they are likely to perform any way will find in such tabulations much information to influence the reorganization of courses of study.

HIGH SCHOOLS FOR NEGROES.

One phase of secondary education has never been fully considered, that of negro boys and girls. In the South, where enough negro pupils desire secondary education to warrant it, segregated high schools are established, but the curricula and courses are often not well adapted to the peculiar needs of the pupils. The provisions at St. Louis must be cited as conspicuously good, however. Frequently the equipment is poor and the content of the courses highly academic. Age-grade tables, as those from El Paso, show the negro pupil considerably retarded, and the elimination everywhere is high. In Louisville, Ky., for 1915–16, only 10 per cent of the students were enrolled in the senior class, and the sophomores were 44 per cent of the number enrolled as freshmen. In the whole State of Kentucky in 1916–17 there were 32 negro high schools, with an average enrollment of fewer than 41 pupils, 1,225 negro pupils for the entire State. Half of the entire enrollment was in the freshman class and only 9.4 per cent of it in the senior class. It should be noted that in these schools the average value of the equipment for manual training and domestic science was less than $700, ranging from $25 to $2,150. The per capita cost for conducting the 32 schools was $12.

In the North, negro children when they apply are admitted to high schools with little or no distinction because of their race or peculiar needs. Some years ago Mayo showed that in one of the New York City high schools the negro pupils, although a very highly selected group, did work inferior to that of the white pupils. In the 1917 report of Supt. Wilson, of Topeka, Kans., there are tables presenting the facts concerning withdrawal and failure in the high school of negro and white pupils by subjects for several semesters. The tables are prefaced by the statement:

> The facts shown in the following tabulations I am reporting with regret. The tables show an abnormally high per cent of failures among the colored pupils. * * * The facts are that the colored pupils show a lack of efficiency somewhere in the system. The problem is not one for the cheap politicians or the demagogues of either race.

The facts presented seem to show that in the Nation as a whole the conditions of secondary education are not as satisfactory for the negro pupils as for the white. If the State affords education not as a luxury for the individual, but rather as a serious investment for the return which will come to itself, it can not safely neglect any important group of its people.

SECONDARY SCHOOL TEACHERS AND PRINCIPALS.

Before the declaration of war by the United States the movement for improving the quality of secondary school teachers was strong. Many States, particularly those in the North Central Association territory or contiguous to it, had adopted for high schools standards which included one or more items concerning the preparation and experience of teachers; and the inspectors in several reports stated that the quality was steadily improving. The legislative committee of the Kentucky Educational Association in 1917 passed the following resolution:

> Since the rules and regulations of the State board of education, under the requirements of statutory law, fix the minimum academic scholarship of teachers in standard four-year high schools at the equivalent of high-school graduation plus two additional years' training in normal schools or colleges, we favor the enactment of these regulations into statutory law for the advice and government of boards of education and trustees throughout the State.

Washington has raised its requirements for high-school teachers to a complete college course which includes 12 semester hours in education; and the State superintendent of Utah announces in his report for 1916 that:

> The State board of education has wisely increased the requirements for certificates to teach until at present high-school teachers must have completed a standard college course of four years, and this must include, or the applicant must have in addition to his degree, after June 30, 1917, one year of professional work, 18 hours of which must be strictly educational subjects.

This is essentially the requirement of California, a State which for a number of years had led the country with its standards for teachers of public high schools. Even Louisiana, the schools of which have been handicapped by extremely inadequate appropriations, adopted in 1916 a standard that will be gradually raised until the minimum requirement for teachers in high schools is graduation from a four-year college or university course. This standard can hardly be attained unless the State makes a material increase in salaries for high-school teachers, the average at that time being $680. As an illustration of a practical set of requirements, those from New Hampshire are given, together with the introduction, both from Circular No. 1, 1917.

> At this time it is impossible to obtain secondary teachers trained for their work. We will accept this condition for the present, but we must insist that teachers have no other capital defect beyond their ignorance of the teaching process. We have

long demanded that they be satisfactory in character and in mentality. We must now insist that they have in addition sufficient maturity and experience to make them leaders of young people, and sufficient knowledge so that they may guide them. This department plans to uphold superintendents and headmasters in their efforts to secure only qualified teachers, and to this end will make the specific approval of the teachers engaged a preliminary to the approval of the school.

The following schedule is published to enable school officials to determine the general education and the special training to be required of candidates. It will be noted that in two notable particulars this statement differs from those given before. (1) A real requirement is set for the education of teachers of commerce. The commerce courses have been the least successful and the least honored of secondary courses, and a common reason is that the teachers have seldom been the equal of the teachers in other courses in education, in experience, or in maturity. This requirement is designed to prevent the approval of such teachers. It is desirable that schools drop their commerce curriculum if they are unable to secure qualified teachers. (2) The second change is in required special preparation. It is insisted that teachers be not assigned to teach subjects with which they are not familiar.

General education required.—Teachers must have a bachelor's degree from an approved college.

Exceptions.—Teachers who have studied four full years in approved schools of post-secondary grade.

Teachers who were in service in New Hampshire approved secondary schools prior to July 15, 1905.

Teachers of modern languages who have received adequate European or other training. Individual cases to be approved by the department. Provided in this and the three cases following that not less than 80 per cent of their teaching be in their specialized subject.

Teachers of domestic arts who have pursued at least three full years of post-secondary study in approved special institutions.

Teachers of commerce who have pursued at least two full years of post-secondary study in commerce in approved special institutions. In addition they must have two years of general post-secondary study, of office work or of successful experience in teaching.

Teachers of mechanic arts with scholastic and practical preparation sufficient for needs of their work. Individual cases to be approved by the department.

Teachers holding Grade B certificates whose work is restricted to grades seven to nine, except as specifically approved.

Teachers who have one, two, or three years of post-secondary study in approved institutions may be approved to teach courses not above the corresponding years of the secondary program.

Teachers who fail to meet the above qualifications but are now teaching with success in approved New Hampshire secondary schools. Individual cases to be approved and the courses that may be taught to be specified by the department.

Special preparation required.—Teachers must be prepared by two or more years of post-secondary study of each subject they propose to teach, such study to include the branches of the subject presented in the secondary courses.

Exceptions.—Teachers who have but one or two classes in a subject may be prepared by one year of post-secondary study of that subject.

Each year of post-secondary study may be replaced by two years of successful teaching of the subject in approved secondary schools.

For inexperienced teachers the department may waive the minimum requirement for one class only. Individual cases to be approved.

These illustrative standards are much more encouraging, however, than the reports of actual conditions. The progressive State of Wisconsin reports that, in 1916, 79 per cent of its high-school teachers in cities, and 56 per cent of those in county high schools, were graduates of colleges or technical schools, no account being taken of the standing of these higher institutions. Pennsylvania reports that only 46.2 per cent of its high-school teachers were in 1917 graduates of colleges. State Supt. Morrison makes a frank statement of the conditions in New Hampshire:

> Of the 507 different teachers employed in secondary schools of all classes approved by this office for the school year 1915–16, 393 or 77.5 per cent were graduates of colleges which grant the bachelor's degree. Of the remaining 114, the large majority were instructors in practical arts subjects judged to have had the requisite special training for instruction in the subjects which they teach. Twenty-five were teachers of modern language and other liberal arts branches who were not college graduates but who had prepared themselves by special study for instruction in their chosen fields and were deemed to have had the full equivalent of college graduation. The remainder of the 114 were graduates of normal schools or equivalent institutions teaching in junior high schools or third and fourth class high schools. Ninety-three per cent of all teachers of liberal arts branches in first-class secondary schools were graduates of colleges.
>
> We have less than a dozen teachers of modern languages in the State who are thoroughly competent in education to teach modern languages in a high school, but most of the remainder are passably competent; less than 20 who are thoroughly competent for science; less than half a dozen for history; a dozen for mathematics; a very few for Latin; almost nobody in English unless the pedantic conception of the language and literature of the mother tongue which most of them bring from college is competency. And yet the teaching staff of our secondary schools is better educated to-day than it was 20 years ago, when it was no uncommon thing for teachers to be employed for high schools whose education had been limited to that of the schools in which they taught.
>
> We have still in this State, as in most States, a secondary teaching staff which is wholly untrained. Not one per cent of the secondary teachers of the State have ever had any professional training at all comparable to what 44 per cent of the elementary teaching force has had. A few have taken courses in education in college, and that is a help.
>
> There are reported 147 persons teaching in the secondary schools of the State in the school year 1915–16 who graduated from college in 1914 or 1915. This is more than one-third of all the college graduates teaching during the year, and the same proportion practically would hold for the noncollege teachers. That means that you turn over your boys and girls at their most impressionable age to striplings who are without training or experience, who have no notions of teaching except those which they bring with them from college; and who in most cases have no intention whatever of teaching beyond the few years which form a fitting interlude between college and matrimony. We wouldn't deny them the latter, but we do think that if they are going to teach at all they ought to learn how to teach just as do the girls who are two years younger and who are teaching in the elementary schools.
>
> Our notebooks and records of inspection tell a wretched tale of the farcical instruction commonly found in the classrooms of these young teachers, particularly in English, both language and literature, in history, in languages and in science. Ordinarily teaching consists in assigning pages out of an incomprehensible textbook

or dictating from a college notebook. And this to boys and girls of an age which need skillful teaching beyond any age other than that of the primary school.

Of course, there is found the occasional "born teacher," and, on the other hand, anybody who has the mentality to have won through college improves through experience. But the point of view is prone to remain permanently formalistic, and it too often rapidly becomes pedantic.

In order that administrators might have some index of the kind of teachers the different colleges are furnishing the schools of New Hampshire, Dr. Morrison has asked the several superintendents and principals of the State to rate their teachers who were recent college graduates. The following instructions were used:

In rating use the letters A, B, C, and D. Use A for a teacher who is all that you could reasonably ask, efficient in practice and possessed of an understanding of what she is doing and why she is doing it. Use D for teachers who were incompetent and ought to have been dismissed or were dismissed. Use B and C for grades between. A "B" teacher may be thought of as characterized by the term "Good average." A "C" teacher is one who is rather below the mark and ought to be dismissed unless she improves, but in whose case there is ground for hope that she will improve. She is not incompetent. Mark critically and severely.

These ratings for the whole State are tabulated by colleges and published.

State High School Inspector Hand, of South Carolina, makes an even more depressing statement of facts as he sees them in his State:

To anyone familiar with the conditions that obtain in many places throughout the State, it is simply amazing to see the absolute indifference of the people as to the qualifications of those who teach their children and fleece them of their money. Men and women innocent of any charge of education, without any aptitude to teach, and without any experience are put in charge of schools, in the face of the fact that they are to have little, if any, supervision. It is safe to say that there are in South Carolina 500 white teachers holding legal certificates to teach who could not make a grade of 50 per cent on the studies of the eighth and ninth grades of our public schools, if examined as rigidly as are the pupils of these grades in the best schools of the State. It would be unsafe to say how many white teachers are holding certificates granted on all manner of pretexts, from long experience (successful or unsuccessful) down to two weeks' enrollment at some summer school. Notwithstanding the fact that almost anybody can get a certificate to teach school, there are in the public schools not fewer than 100 white teachers drawing salaries without any semblance of legal authority to teach. Some of them have been teaching from 10 to 20 years without a certificate of any kind.

These statements have concerned the teachers of entire States. From the following quotation from the 1918 report of Associate Supt. Tildsley, of New York, it seems that even cities where the highest absolute salaries are paid are suffering materially from the low quality of new teachers entering the high schools. Abnormal business conditions are not the only cause.

We have experienced this past year an increasing difficulty in securing men teachers of the personality and training New York City has a right to demand in the teachers of its youth. The rapidly mounting cost of living has so reduced the purchasing

power of salaries that men, and especially married men, can not live on the salaries which were fixed on the basis of a much lower cost of living. While teachers' salaries have been reduced through the operation of rising prices, opportunities for employment at rising salaries have been opened up in business, with the result that not only is the supply of men teachers being cut off at its source, namely, the graduating classes of our colleges, but teachers now in our schools are being drawn away by the larger salaries paid in other occupations. Unless the high-school pupils in this city are to be taught entirely by women or by men of inferior personality inadequately trained, and without the character and the qualities of leadership which are needed in those who are expected to train our boys and girls for the responsible duties of citizenship, a very considerable increase in the salaries of high-school teachers must be made. Much as we all deplore the constant increase in the tax rate, the people of New York must realize that in this city, with its large foreign population, the cost of education must be reckoned a first charge on revenues.

It needs only a casual comparison of the so-called salaries of school-teachers with the wages now received by men and women in the world of industry and commerce to explain these conditions and others equally bad, though for various reasons not presented in school reports.

THE TENURE OF TEACHERS AND PRINCIPALS.

However good teachers and principals are, schools can not be satisfactory unless tenure in the same position continues over a considerable period. In Wisconsin the median length of experience for all high-school teachers was in 1916 four years; the median length of service in one locality was one year or less. In Pennsylvania the story is only a little better: Half the teachers who are graduates of colleges have taught five years or less, and half of those who are only graduates of normal schools have taught only two years longer. The condition in small high schools is everywhere pitifully bad, changes of teachers occurring with great frequency, and supervision being negligible. From California, where salaries are relatively high, come the following report and recommendations:

> The commissioner has compiled data showing that the tenure of principals and teachers in the small high schools is all too short. Of the 32 small high schools established previous to 1911–12, 6 made no change in the principalship during the four years ending June 30, 1916; 11 made two changes; 12 made three changes; 2 made four changes; and 1 made five changes. The average tenure of principals was a little over two years. These schools in 1915–16 employed 104 assistant teachers. Of this number only 10 were teaching in California high schools in 1911–12. It would seem therefore that the small high schools are taught for the most part by teachers with little experience. By fixing the minimum salary of principals at $1,600 per annum, for example, which is $100 less than the average now paid, and advancing the salary $100 per annum until a maximum of $2,000 is reached, school boards in charge of small high schools will undoubtedly be able to retain the services of principals for a term of years. It is desirable that high-school boards be authorized by law to employ principals for a four-year term after one year of probationary service.
>
> When we consider teachers' salaries, we find a similar situation. Good teachers are in demand and better salaries attract them. By adopting a salary schedule based upon experience the school board will establish a condition favorable to the retention

of teachers by the district for a longer period. The commissioner suggests that the minimum salary in small high schools be fixed at $1,000 per annum, and that provision be made for an increase in the salary annually until a certain maximum is reached. The additional amount paid to teachers under this plan will yield better returns to the community than the same amount expended for an additional teacher.

New Hampshire has a worse story to tell:

The teaching force is very unstable. Very nearly two-fifths of all our secondary teachers were new to their places last year. Three-fifths were holding their positions for the first or second year; 37.4 of the college graduates had held their degrees for less than two years. This proportion holds year after year, and the situation is almost fatal to the efficiency of our higher institutions. Only about 9 per cent of our whole secondary teaching force were graduated from a New Hampshire institution. With rare exceptions, the remaining 91 per cent have no stake in New Hampshire, they are not personally the best of material, they do not understand our ways, and naturally they move at the first opportunity.

The situation in Massachusetts is graphically told in the two accompanying tables, the first showing the length of tenure of principals in each class of high schools, Class IV being the weakest, and the second revealing the absurdly small increases in salary that the principals were given. Approximately one-half of those who held their old positions had no increase at all, and 72 per cent of those who were rewarded were given an increment of $100 or less, 26 per cent very considerably less. The wonder is that trained men and women enter at all, to say nothing of remaining in, a vocation that offers such niggardly rewards for service.

Tenure of principal's position.

Number of years principal occupied his present position previous to September, 1916.	Number of high schools.				Total.
	Group I.	Group II.	Group III.	Group IV.	
0 years	8	14	9	21	52
1 year	8	6	10	9	33
2 years	12	4	12	10	38
3 or 4 years	11	11	16	7	45
5 to 10 years	23	11	10	7	51
Over 10 years	23	7	6		36
Total	85	53	63	54	255

The following table shows that of the 203 principals who occupied their present positions last year only 100 received an increase in salary.

Increase in principal's salary.

Increment in salaries.	Number of high schools.				Total.
	Group I.	Group II.	Group III.	Group IV.	
Change in principal	8	14	9	21	52
No increment	44	22	22	15	103
Increment of $50 or less	2	4	13	7	26
Increment of $51 to $100	14	8	16	8	46
Increment of more than $100	17	5	3	3	28
Total	85	53	63	54	255

A State policy of providing adequate increments in the salaries of high-school principals would do much to attract men of superior ability and to reduce the excessive changes in the principalship.

The median length of service in their positions by principals of first-class high schools in Missouri in 1916 was less than two years.

EFFECT OF THE WAR ON TENURE.

However bad conditions were in 1916, they became considerably worse with the entrance of the United States into the war. Large numbers of the young men teachers entered the Army, as there were no provisions by the Government for retaining them in the less dramatic but equally important national service of teaching. Some, especially teachers of science and of industrial subjects, have forsaken the schoolroom to aid in the campaign behind the lines; and recently there has been a steady and successful movement to enlist some of the most desirable young principals and teachers in various kinds of social work among the soldiers. The schools have willingly given up all these men and women as their part in winning the war, but it is a national shame that a false sense of economy on the part of the public should have permitted so many thousands of other principals and teachers to be tempted from the schools by the large increases in wages offered them by industries of all kinds. It is imperative that a program be formulated at an early date for recruiting for the secondary schools the highest quality of young men and women and for giving them adequate academic and professional training to equip them to educate the million and a half boys and girls who are seeking some form of advanced education.

THE TRAINING OF TEACHERS AND PRINCIPALS.

For the 1916 report of State High-School Inspector Kingsley, Prof. Inglis, of Harvard, prepared the following statement concerning the preparation of high-school teachers in Massachusetts. An ideal program for the training of such teachers has been formulated and recently published by the College Teachers of Education.

The colleges of Massachusetts have always been the main source from which teachers are recruited for the secondary schools of the Commonwealth. Until the last decade of the nineteenth century the training thus afforded included solely instruction in the subject matter of the various studies to be taught. No attempt was made to provide specific training through professional subjects of education until 1891, when such training was begun at Harvard University. At the present time such courses are to some extent provided in all except 4 of the 18 colleges of the Commonwealth.

The desirable forms of professional training for secondary school-teachers and the work now offered by the colleges of the Commonwealth are as follows:

1. Instruction in the subject matter of the studies to be taught in the secondary school. This is now well provided in nearly all the colleges.

2. Instruction in the fundamental professional subjects of education, such as the history of education, educational psychology, and principles of education. Thirteen or fourteen colleges in the State offer such courses, though in some cases these courses are taught by instructors not primarily interested in education as a professional subject of study.

3. Instruction in the principles and problems of secondary education. Nine or ten colleges offer such courses. Much remains to be done in this field.

4. Instruction in the methods of teaching in the secondary school. This may be provided separately or combined with instruction in the principles and problems of secondary education, or combined with instruction in the teaching of various subjects. This work is offered in a few institutions only, and is generally admitted to be inadequate.

5. Instruction in the teaching of various subjects. Five or six colleges provide some courses of this nature, but the condition is very unsatisfactory, in part because it is uneconomical to provide separate courses in the teaching of all the various subjects on account of the small number of students intending to teach a single subject, and in part because such courses are commonly taught by the regular college instructor in those subjects, whose experience in secondary-school teaching has been slight or entirely lacking.

6. Experience in supervised apprentice teaching. Nine or ten colleges now offer facilities for such apprentice teaching under professional supervision.

In 1916 about 700 graduates of Massachusetts colleges entered the teaching profession, for the most part in the secondary schools of this and other States. Of that number approximately 500 had taken at least two professional courses in education. Returns from colleges show that few, probably less than 100, had done some apprentice teaching as a part of their professional training in the college.

The colleges of Massachusetts have made a promising beginning of training teachers for the secondary schools of the State. Further progress in that direction is conditioned by a number of factors, among which the most important are—

1. The establishment of a system of certification which shall prescribe standards of admission to the service and encourage the professional training of secondary-school teachers.

2. Recognition of the fact that a graduate year of professional study is essential for the adequate training of such teachers, and provision for such a graduate course.

3. The provision of greater and better facilities for apprentice teaching under supervision as a part of the training of secondary-school teachers.

4. Provision of greater and better facilities for prospective teachers in the methods of teaching each of the various subjects in the secondary school.

It is to be noted that the first three of these factors are to a great extent dependent upon State action. Until the present, the initiative in providing facilities for the training of secondary-school teachers in Massachusetts has been taken by the colleges without the active assistance or cooperation of the State. It is probable that the extension of those facilities must depend to a considerable degree on the action of State and local school authorities.

New Hampshire suggests the following steps as feasible and likely to lead to a higher grade of scholarship in the teaching force of its high schools:

1. Let our State college be so organized as to give each student preparing to teach in high school four years of intensive work in the single subject which he plans to make his specialty. He would have minor subjects, also, of course. There is no good reason why the young person who has finished high school, and who knows that he is to teach at all, should not be able to choose his specialty before entering college as well as on the day he applies for a job.

2. Encourage postgraduate work by special State aid to graduate teachers who attain the master's degree, after much the same plan as that of our present State aid for qualified teachers in the elementary schools, which has worked so well.

3. Let the State college aim to furnish the bulk of the new teachers needed to recruit the secondary-teaching staff.

SUPERVISION OF INSTRUCTION.

Supervision is necessary for the improvement of teachers, whatever their training or experience. It is especially needed where it is least given, in the small high schools that are taught by young men and women, many of whom would rapidly become professional and increasingly expert under the guidance of a supervisor of insight and sympathy. As a rule, the county superintendent on his infrequent visits to a school gives little attention to the high-school teachers, partly because he feels that their training must have fitted them for their tasks and partly because the aims and standards of secondary-school teaching are still indefinite. The State high-school inspector probably has a larger influence at his annual visit, chiefly because he comes with the prestige of his position and a perspective gained from seeing the work of hundreds of teachers who are attempting to give instruction on the same or similar subject matter. It would be well if the functions of inspection and of supervision could be separated, as in Arkansas. Data from the several States, much of it unpublished, give evidence that the State inspectors vary much in their helpfulness to teachers. In Maryland, where, since the school survey supervision has been emphasized, State Inspector North reports that he has visited classes, recorded data on well-devised blanks (see Md. State Rept., 1917, pp. 168–169), held individual conferences with teachers on problems of instruction and with principals on problems of administration, suggested plans for working out desired school improvements, and in a large number of cases met the faculties after school hours, when questions of immediate moment to the particular school and of larger significance in the high-school field were discussed. The report continues:

> The plain intent of the present school law, as regards high-school supervision, is that the supervisor shall devote himself primarily to *supervision*—that is, to the task of endeavoring to bring about a better quality of instruction, to improve the actual teaching in the classroom; and though this involves a number and variety of other duties, both in the field and in the office, the outstanding function of a *supervisor*, as distinguished from an *inspector*, is unquestionably that of helping to improve teaching by working with the teachers now in service. The supervisor, therefore, began the year's work with the plan of working immediately at the actual problems of the classroom; but less than one month's experience convinced him that the year would have to be devoted principally to procuring changes in the internal organization of the schools, and in securing the minimum equipment with which a good quality of teaching might reasonably be expected. The most conspicuous needs of the school as a whole were found to lie in these three directions: (1) More apparatus, textbooks,

materials of instruction, library equipment; (2) rearrangement and better adjustment of school programs to the State course of study; and (3) more and better teachers. Accordingly, this report will review, in a general way, under these three heads the principal points of the supervisor's findings and efforts.

A part of the discussion of apparatus, textbooks, materials of instructions, and library equipment is appended:

There were on the approved list for 1916–17, 72 high schools, 30 of the first group and 42 of the second. Of these, at least 7 of the first group (23 per cent), and at least 20 (47 per cent) of the second group were conspicuously short in these several particulars of the minimum laid down by the State board as requisite for placing a school on the approved list. Most of these schools had been on the list for several years, and many of them had drawn the State aid ever since 1910, when it was first granted; but they had never been furnished, nor would they, apparently, ever have been furnished with sufficient equipment to do genuine high-school work without the steady, insistent pressure and frequent regular inspection provided by the new law. Their shortages were of various kinds; some had no library and no apparatus of any sort; others had the unusable remains of an antiquated library and of an archaic laboratory outfit; and still others had, owing to annual changes of teachers, let their equipment, good at first, run down almost to nothing. These shortages mean that the classroom exercises in science were limited to mere textbook work, answering rote questions, the reciting of memorized portions of the texts; that there was no library reference or supplementary matter available; and that the instruction in the two social subjects, English and history, was simply dying on its feet, being confined entirely to one book—the text used; and the lack of maps and charts, either purchased or homemade, simply petrified the instruction in history and in Cæsar.

But supervision is needed also in large high schools, either directly by the principal or by experienced assistants to whom he delegates this important function. This is recognized and strongly urged by Dr. Tildsley, of New York City, in his report for 1918:

What is most needed in our high schools, next to closer and more skillful supervision on the part of the principal himself, is more effective supervision by the first assistants who are chairmen of departments. There is a remarkable disparity in the effectiveness of such supervision at the present time on the part of the various first assistants in the different schools, and even between first assistants in the same school. It seems evident that, in the examinations in the past, scholarship has been given emphasis rather than qualities of leadership and administrative ability. It is to be hoped that in the coming examinations the board of examiners will emphasize personality, past achievement in our service, and proved qualities of leadership, rather than knowledge of the subject matter and even of methods. Scholarship and knowledge of methods, if not accompanied by courage, kindliness, and that intangible quality known as leadership, avail a head of a department but little. Contrary to general opinion, our high schools are suffering not from oversupervision, but from undersupervision. Some principals allow themselves to be confined to their inner offices, busied over details which could often be assigned to a subordinate, when they should be in the classroom inspiring the teachers and stimulating the pupils. Some of these principals, while thus giving too little of their time to actual classroom inspection, are not even supervising by proxy, since they have not succeeded in developing heads of departments who are the real leaders and not merely the nominal leaders of departments and who lead because of their grasp of the problems of their department, their initiative, encouragement, and judgment. Weak heads of departments for the most part must be charged against the principal of the school. If the board of exam-

iners has ever erred in placing unfit teachers on the first assistant's list, only in rare instances has pressure been exerted on the principal to take a first assistant not of his own choice. Furthermore, such first assistants have had a temporary tenure for three years, and during that period would have lost their licenses on unfavorable reports of the principals. Heads of departments grow if the principal encourages them or even allows them to grow. They degenerate if the principal gives them no authority and does not encourage the exercise of initiative on the part of his chairmen. A really strong principal will be found surrounded by strong, aggressive, and progressive chairmen of departments composed of enthusiastic, energetic, efficient teachers. Where such a condition does not exist, the responsibility lies with the principal who has stifled the growth of his teachers.

It is obvious that, if effective supervision is to be secured, a greater demand must be made as to training and professional fitness on the principal. State High-School Inspector Calloway, of Missouri, emphasizes this point in his report for 1916:

We need to evolve in this State a position of high-school principal. The city superintendent can not give sufficient time to the supervision of instruction in our high schools. The superintendent with the grade work and with official duties can not effectively do this work. It is clear to me that it must be provided for through the high-school principal. He must be given more time. His work must be organized in such a way that he can find time for work with high-school teachers. The high-school principal should be given more authority and his duties more clearly defined. His status is not at the present time such that his influence with his teachers is strong. He is not taken seriously by high-school teachers, and consequently refuses to take a hand in matters over which he does not have full authority. Both authority and dignity must be attached to this position before our best men will remain high-school principals. When we have created such a position in this State, the high-school principalship will not be a stepping stone to the superintendency. The superintendent now has more than he can do. Such a change will not, in any way, curtail the importance of the position of the superintendent.

Inspector Kingsley, of Massachusetts, also recommends a requirement of professional training:

Too often a principal is selected on the ground that he has a pleasing personality and has been unusually successful in teaching some one subject. These qualifications, while important, are far from adequate. He should be a student of educational problems. It is extremely desirable that he should have taken courses in high-school organization and administration in a college or university. This seems to be a reasonable requirement in view of the summer schools now offering such courses. Experience as principal of a smaller school affords excellent training for similar responsibilities in a larger school, while experience as a department head under a capable principal is of added value.

Not only must the principal be trained, but he must also be given time from his administrative duties to visit classes and confer with his teachers daily in an effort to improve their work. Every one who has studied the situation has found that actually few principals find the time to perform adequately the most important function of their office—the supervision and improvement of instruction. Mr. Calloway, by means of a questionnaire sent to principals of all first-

class high schools of Missouri, St. Louis and Kansas City excepted, found that they distributed their time as follows:

Teaching periods of principals.

Number of periods.	Number of principals.	Per cent of principals.
0	6	5
1	2	1
2	3	2
3	12	10
4	23	11
5	37	30
6	34	28
7	4	3

Median number of periods taught daily by principals, 5.

Keeping study hall.

Number of periods.	Number of principals.	Per cent of principals.
0	44	37
1	37	31
2	29	24
3	9	8
4	1	1

Median number of periods given daily by principals to keeping study hall, 1.

Doing office work.

Number of periods.	Number of principals.	Per cent of principals.
0	20	16
1	61	50
2	25	20
3	13	8
4	11	6

Median number of periods given daily to office work by principals, 1.

Supervising.

Number of periods.	Number of principals.	Per cent of principals.
0	82	70
Less than 1	8	6
1	16	13
2	10	8
3	0	0
4	1	1

Median number of period given daily to supervision by principals, 0.

A similar story is told in the reports from Virginia and Kentucky, and doubtless would be repeated in almost every State if the data were available. With the omission of 31 principals in Virginia and

of 110 in Kentucky who made no report, and of 20 in Kentucky who confessed that they gave "very little" time to supervision, the following tabulation was made:

Amount of time given daily by high-school principals in Virginia and Kentucky to supervision.

Periods.	Virginia.	Kentucky.
	Per cent.	*Per cent.*
Give no periods	61	22
Give less than 1 period		9
Give 1 period	15	24
Give 2 periods	14	20
Give more than 1 period	20	35
Give more than 2 periods	7	14
Give more than 3 periods	2	8
Medians	0	1

The situation is bad enough if the figures are taken as recorded; it is worse if they are critically examined. Although there is no disposition to imply dishonesty on the part of principals making returns to the State office as to how they spend their time, it must be recognized that the tendency would be to report a larger number of periods given to professional and supervisory functions than actual daily practice would warrant; moreover, some principals may have misunderstood the instructions. In Kentucky, for example, 12 principals report that they spent from five to nine periods daily in supervision. One-half of these principals were in schools of fewer than 125 pupils, 43 per cent of them in schools of fewer than 50 pupils, and 25 per cent in schools of fewer than 25 pupils. Surely it would be worth while for the State inspector to make a study of the methods and results of such intensive supervision.

Inspector Calloway, of Missouri, makes the following comment on the returns from his questionnaire study, some of the data of which were presented above:

> To make a frank statement, there is not in this State, with a very few exceptions, what may rightfully be called a high-school principal. Except as regards some minor duties, practically all of the so-called high-school principals are nothing more than high-school teachers. They are principals in name only. This is borne out not only by the amount of teaching done but also by the tenure of service. Forty-four per cent of the teachers are in their positions this year for the first time, while 43 per cent of the principals are in their positions for the first time. Of the 121 principals reporting, there are only 11 who do not teach as many as three periods, or half time; 6 report no teaching; 2 teach one period; and 3 teach two periods per day; 72 per cent teach four or more periods; 3 per cent teach five periods; and 28 per cent, or more than one-fourth, do a full day's teaching.
>
> As study-hall keepers, 77, or 63 per cent of the 121, keep study hall one or more periods; 85 per cent of the principals give one or more hours per day to office work; 35 per cent give two hours or more; and 15 per cent give three or more hours per day to office duties.

When the question of the supervision of instruction in the high schools is taken up the high-school principal falls far short; 82 of the 121, or 70 per cent, give absolutely no time to high-school teaching besides their own classes. An additional 6 per cent give less than one hour to high-school supervision, and only 22 per cent give as much as one hour to high-school supervision. My observation is that this is perhaps an overstatement of what is really done.

Of the 121 high-school principals, 52, or 43 per cent, are in their positions this year for the first time; 21 per cent are in their positions for the second year; and 16 per cent are in their positions for the third year; 5 per cent have been in four years and 4 per cent for five years. Five high-school principals have been in their present positions more than 10 years.

The State over the high-school principal has no voice in the selection of his teachers; 97 of the 121 report no voice in the selection of high-school teachers, and those who report some voice in the selection show that this is usually only in an advisory way.

The great number of new teachers in our high schools each year as a single factor shows a great need for a supervising principal. The fact that 44 per cent of the teaching force in our high schools change each year is in itself an unquestioned demand for closer supervision. And the additional fact that 32 per cent of the total teaching force has never taught in the high schools before this year is but a further justification of this demand. It is impossible that teachers do satisfactory work under such conditions. Perhaps no other factor is so largely responsible for the shifting each year of high-school teachers as the lack of adequate supervision of instruction. Many teachers come into the high schools enthusiastic and with high ideals of what ought to be done. They are misunderstood by their pupils. Their work does not go as they have planned. They become discouraged, flounder around for a time, and then settle down to the line of least resistance.

EXTENSION OF FUNCTION OF HIGH SCHOOLS.

The growing critical attitude toward the high school, of which mention has already been made in this and in the report two years ago, finds expression occasionally in such a passage as the following from the superintendent at Williamsport, Pa.:

> In many ways the high school is doing excellent work, for which both principal and teachers deserve full credit. There are, however, in my judgment, some weak points that ought to be strengthened. One weakness is in the organization of the high school. The general attitude of faculty and students seems to be that children are sent to the school to do a certain amount of work, and that the teachers are there for the purpose of testing the children to find out whether or not they have done their work and to grade them accordingly. Both parties seem to feel that when each has performed his work individual responsibility ends. It does not seem to be the prime motive of the high-school faculty as a whole to bring out the best that is in the pupil, but rather to permit the delinquent to eliminate himself from his class or school through repeated failures. The character of this kind of discipline is negative and repressive instead of positive and directive. Even in some colleges to-day there is a dean whose duty it is to get hold of the failing student early and help him, if possible. Throughout the high-school course there should be continuous growth in self-reliance, willing and cheerful obedience, and closer cooperation between the student body and faculty, and also like relations should exist between the principal and faculty.

Criticism must lead primarily to a clarification of the function of secondary education. Toward this end the appended statement of Commissioner Meredith, of New Jersey, will be an aid:

The high school should assist—

First, by leading the pupil to a conception of the variety and the significance of the work to be done in the world. This may be done, in part at least, through a study of vocations. Pupils may thus be led to see what fields of activity are open both to boys and to girls; what general and what specific personal qualities are necessary for progressive success, together with the special training required. A study of this character would reveal the probable demand for workers in a given field, and also indicate the remuneration to be had in terms of both money and personal and social advantages.

Second, by testing the pupil's capacities and interests over a wide field of subject matter and activities. The high-school period is a time of self-discovery and self-realization for the pupil, and the process of discovering latent interests and abilities is a function both of the teacher and of the pupil.

Third, the school may assist the pupil by giving him definite training in fundamental subjects and by providing for systematic physical education, which should include the inculcation of ideals and standards in this paramount phase of education.

Whatever may be the ideal, there can be little question after reading numerous reports from both city and State superintendents that the tendency of high-school education is strongly vocational. This tendency is likely to be strengthened by the Smith-Hughes law, which by its opportunities for financial aid seems to be influencing strongly the reformulation of curricula. Many schools, however, are finding difficulty in meeting the requirements of the law.

Self-criticism is also leading to a widening of the functions of the high school. The tendency to include in secondary education the seventh and eighth grades as a part of the junior high school is progressing quietly, especially in the largest cities; New York, Chicago, Philadelphia, St. Louis, and Boston having established the beginnings of such schools. The inclusion of two years upward as a junior college is generally approved, but for economic reasons the movement is making little progress. Springfield, Mass., and Kansas City, Mo., have recently established junior colleges. Extension work by high schools has been tried in one county in California, and the departments of teacher-training for the elementary grades is making substantial progress. Reports from the several States testify that the work is proving satisfactory. Evening high schools are of increasing importance, with enrollments encouragingly large; but everywhere the problem is to secure a high percentage of regular attendance. The reports testify that the effort is generally being made to present in these evening schools, as has been done in the schools conducted by the Young Men's Christian Association and other semipublic or private agencies, what the mature students want. Summer high schools likewise seem to be accepted as of growing importance as a regular part of the school system. It is interesting to note that a number of reports justify them by presenting data concerning not only the attendance but also the success of the pupils in earning credits and in maintaining their standing in the successive terms.

One development of high-school work that needs more extensive treatment than is possible in this report is in the growth and use of high-school libraries. From every section of the country have come reports not merely of increased appropriations for books but also of the employment of trained full-time librarians and of the introduction of systematic instruction in library work. Although it is strange that this development should have come so late in our secondary schools, it is no less gratifying that the movement is progressing so generally and with such vigor.

THE WAR AND SECONDARY SCHOOLS.

The effect of the war on secondary schools has been manifest in the enrollment, in the subject-matter of instruction, and in the extra-curricular activities. Mention has already been made of the fact that many teachers and principals have been drawn from the schools by the demands of other service. The pupils also have felt those demands: some of the older ones entering the Army, and many others, especially in centers of industry, undertaking remunerative work. The superintendent of schools in Chelsea, Mass., for instance reports:

> During the preceding year there was a large loss of pupils, largely due to the increasing demand for unskilled and inexperienced laborers. This condition was aggravated by the increasing cost of living and the fact that many of our pupils came from poor families in which the older children were called upon to help meet this higher cost of living by going out to work for wages. Undoubtedly the higher wages which were offered for this kind of labor tempted many pupils who had been gradually losing their interest in school to leave in order to go to work. Figures show that in the year 1915–16 nearly two-thirds of those who left school were freshmen.

In New Bedford, Mass., 23 per cent of the entire high-school enrollment withdrew during the year 1916–17, 62 per cent of the withdrawals going directly to work. In Providence, R. I., La Crosse, Wis., and Aurora, Ill., there were losses of from 4 to 7 per cent; and in the State of New Jersey the increase in high-school enrollment for 1916–17 was only 696 pupils, or 1.4 per cent. The large cities, like New York and Boston, have had smaller enrollments than the previous steady growth had led them to expect. But there has been no such emptying of the schools as many had expected; in fact, school reports for 1915–1917 far more frequently mention continued growth in high schools than any decrease in the number of pupils.

Another effect of the war, that in the spirit of the student-body, has been presented by the superintendent of La Crosse, Wis.:

> While, in any circumstance, war is a most deplorable thing, in my judgment it has been a most wonderful factor in the development in the secondary school of the spirit of citizenship, honor, integrity, and loyalty. The various war activities which the schools have been doing during the year have been wonderful factors of education.

There is no other one influence which has so emphasized the responsibility of even the high-school boy or girl as a citizen, and demonstrated beyond the question of a doubt the fact that no individual can live in a community and be a part of the community without being responsible to the community, and that no person, even a high school boy or girl, can live in modern society as an individual entirely independent of the other individuals in the community.

From all quarters come similar reports; never before in the marvelous growth of secondary education have the pupils been so enthusiastic, so earnest, and so persistent in their work. This has in large measure been due to the fact that high-school teachers have incorporated fresh material and developed or emphasized it by the war situation in their instruction of history, civics, English, science, mathematics, and practically every other subject in the curriculum. It is difficult to see how those teachers after the success that they report in using meaningful, motivated material can return to the formal work that has characterized so much of high-school instruction. In this connection should be mentioned the careful elimination in various cities, notably in Cincinnati under Supt. Condon, of all material in high-school textbooks that seemed directly or indirectly to support autocratic government. Never before has there been such a widespread and determined effort to make secondary schools the means of inculcating the ideals of democracy.

From schoolmen and from the pupils themselves all over the country there has been a constant effort to learn how the schools can best help in the war. Partly to answer this implied question, the Government has, through the Commissioner of Education, issued a number of bulletins to the schools and to the public at large. Among these may be mentioned "Europe's Educational Message to America," "Secondary Schools and the War," "Suggestions for the Conduct of Educational Institutions during the War," "Work of American Colleges and Universities during the War," and "Government Policies Involving the Schools in War Time," the last one mentioned being signed by five members of the Cabinet whose departments are most concerned. The burden of all those messages has been that the high schools should continue their work and make it more vital for the welfare of the Nation in the years to come. The Commissioner of Education also published recommendations of a joint committee on the teaching of the sciences and of industrial work during the war, and, in cooperation with the Food Administration, issued a series of "Lessons in Community and National Life" for the purpose of inculcating the ideals of democracy and broader conceptions of national life.

All over the country the high schools that were equipped for the work gave instruction to the men in the selective draft under the direction of the National Board of Vocational Education. Classes were conducted in telegraphy, in motor mechanics, in the trades

connected with the construction of airplanes, and in other similar work which the men had been assigned, high-school pupils often assisting their teachers in the instruction. In the summer schools training was in many places given for the Women's Business Reserve Corps, the students being women who were preparing to take the places of men called to the Army. In Philadelphia these courses, under the direction of Dr. Lucy L. W. Wilson, included the elements of business, bookkeeping, stenography and typewriting, or stenotypy, filing, office practice, civics, current history, war-time housekeeping, drawing and draughting, telegraphy, and English expression, oral and written. The extra curricular work of high-school pupils during the year has included various kinds of assistance to officials boards, such as the filling and filing of cards, the tabulation of questionnaire returns, the writing of letters and the addressing of envelopes, the making of posters, and other public signs; securing membership for the Red Cross, the Junior Red Cross, the Young Men's Christian Association, the Knights of Columbus; the making of articles for these organizations; the collection of books for soldiers' libraries; the selling of thrift stamps and bonds; the adoption of orphans in the several devastated countries; aiding in the campaign for conservation of coal and food; gardening and farming. The story of the self-denials, the enthusiastic work, and the effective accomplishment of our boys and girls would make one of the most heroic chapters in the history of secondary education.

FARM SERVICE BY HIGH-SCHOOL PUPILS.

Late in the spring of 1917 there were urgent calls for assistance on the farms by high-school boys, and in response arrangements were all over the country hurriedly made by which boys were excused from some school attendance in order that they might render service. In some cases they went on the farms as regular helpers; in others they did seasonal work as the crops of the neighborhood demanded. A number of schools organized their boys into groups who rented and cultivated a farm of their own. Usually school credit was given boys who worked for three months or so, providing their marks were passing; but of course there were different provisions among the many schools whose pupils went to this temporary work. In Philadelphia the board of education granted furloughs to boys over 16 whose class standing was satisfactory, the furloughs applying to May and June and September and October. In North Dakota the State board of education resolved on May 16, 1917, "that it is the patriotic duty of every school in our State to open not earlier than October 1, in order that as many boys as possible of suitable age can assist in harvesting the crops." This resolution was approved by the

State High School Conference. The board very wisely added to its resolution this memorandum:

> This board believes that it is also the imperative duty of superintendents, principals, teachers, and boards of education to urge the attendance at school of all boys below conscriptive age, because the burden of responsibility which will rest upon the rising generation will inevitably be greatly increased by the facts of the war.

Although the appeal for boys was made late, there are reports from all parts of the country that the response was generous, and to the surprise of skeptics the city-bred boy on the whole furnished acceptable aid on the farm. Some of the camps made less money than they had expected, or even after a summer of hard work went into debt; but the balance was on the right side of the ledger; additional food was produced, a demand by boys nearing military age for opportunity to serve was satisfied, and there were numerous by-products of no inconsiderable value. Among these may be mentioned an increased appreciation by the public of the high-school boy, some understanding by the city boy of the farmer and his work, and the introduction of agriculture into several city high schools. Such courses are given in Paterson, N. J., Decatur, Ill., Kansas City, Mo., and Pittsburgh, Pa.

The experience of 1917 revealed possibilities for so great national service that in the several States committees were early appointed to formulate more complete and effective plans than the earlier emergency had made possible. Of all the reports none has proved more intelligent and helpful than that of the committee on mobilization of high-school boys for farm service, Frank V. Thompson, chairman. From this report extensive quotation is made.

On the basis of its experience in 1917 with 1,600 boys—500 in 16 camps and 1,100 on individual farms—the Massachusetts committee made valuable recommendations for the continuance of the work. The following, both direct and implied, are of general interest:

> The committee is convinced that, given the three essentials of time—that is, early enrollment of boys and arrangements for employment with farmers, of proper supervision, and of cooperation with the local agricultural organizations—the work can be successfully carried on.
>
> The committee undertook the development of a plan of placement on farms, as follows:
>
> (*a*) One or more boys on individual farms as requested by farmers, the boys to live in the farmers' homes.
>
> (*b*) Boys to work through local placement as needed on the farms in their vicinity, returning to their homes at night.
>
> (*c*) Organization of camps from which boys would go to work by the day or week on farms in the vicinity of the camp.
>
> The season's experience has demonstrated to the committee that the provision made in the high schools of the State for placing boys on farms for day labor, or for longer periods, can and should be carried on under a plan similar to that worked out for this season; that is, through local placement and under local supervisors.

The committee believes that a successful working out of the camp method of supplying labor requires substantial modifications of the 1917 plan. Among the modifications to which it wishes to direct attention are the following:

1. The necessity for immediately beginning a campaign to acquaint the farmers of Massachusetts with the results of camps established this year and the possibilities for next year.

2. The committee should assume the responsibility for and control of the supervision of camps.

3. The director should have control of the location, equipment, and commissary of each local camp, but should in every possible way seek to utilize existing community resources to the end of making the expenses as low as possible.

4. All of these matters mean expenditure of public money rather than private support by subscription. (An estimate for 50 camps in 1918 is made of $50,000. In 1917 there was an expenditure of $10,141.31, or $6.33 for each boy.)

5. The administration of plans the committee proposes involves the following changes:

(*a*) The appointment of a rather large and representative advisory committee.

(*b*) A small executive committee, seven members, largely made up of men who have had experience in the work during the season of 1917, who shall be responsible to the public safety committee for the conduct of the work.

(*c*) The appointment of a director of mobilization of school boys, responsible to the executive committee for carrying out policies, when adopted and ratified by the executive committee of the public safety committee.

(*d*) The director to be employed at once to carry on the campaign of publicity, of securing cooperation, of making plans for enlistment, of placement; in short, all the work necessary to get an early start on the farm work for the season of 1918.

So far as the experiment in Massachusetts goes to-day the committee finds:

1. That the right type of boys under efficient supervision are valuable in food production.

2. That mutually advantageous working arrangements between boys and farmers can be brought about.

3. That the employment of the boys during the summer, being a seasonable occupation, can be done on a considerably larger scale with no disadvantage to the labor market.

4. That as rapidly as the men withdraw from productive industry for war service, as increased demands are made upon transportation facilities for forwarding troops, munitions, and supplies more and more will production of food be necessary as near as possible to the point where the food is to be consumed.

5. That so far as can be foreseen, farm labor shortage will be more acute in 1918 than it was in 1917.

The committee recommends that the camps be conducted on a semimilitary basis, that training courses be provided for camp cooks and supervisors, and that a uniform practice in conducting camps be worked out embodying the features proved by experience to be best.

The *Maine plan* would probably need modification in some details to be workable in any other State, but it is of great interest in the present emergency. The following is quoted from a circular issued by the officials of the junior volunteers of Maine:

GENERAL INFORMATION.

Purpose.—The purpose of this movement is to discover, enlist, and train boys and young men to supply the extra demand for farm labor made necessary through the increased acreage propaganda recommended by the State and Federal Governments to provide for the war emergencies.

Enlistment.—Boys between the ages of 16 and 20, of good moral character, who can pass the physical examination and furnish satisfactory recommendations, may qualify as volunteers.

Dates of enlistment are on and after June 1, to and including October 31, unless otherwise released by the governor, on recommendation of the director general.

Application blanks may be secured of the principal of the local high school or academies. If not, write to headquarters. Enlistment for both boys and leaders will be on the same basis as that of the National Guard. The boys will be known as "Volunteers," and the leaders as "Commanders."

All desirable candidates whose applications have been duly filed at headquarters will receive orders to report at the mobilization camp for final examination and enlistment.

Leadership.—The boys will be sent out in squads to work in different sections, as opportunity may afford, under the direction of competent adult leaders, appointed by the director general, who will have full charge of the boys until they are returned to the mobilization camp, unless otherwise relieved by the director general. These leaders will be men of unquestioned Christian character and ability for leadership with boys, coupled with a practical knowledge of farm work.

Mobilization.—The camp will be mobilized June 1, at the Y. M. C. A. State Camp Farm, Winthrop Center. This can be reached from either Winthrop or Augusta by trolley.

Instruction and training in general farm work will be given at the camp by representatives of the University of Maine and other qualified leaders, before assignment to service is made.

The volunteers will be sent out in companies, under their commanding officer wherever and whenever needed.

Furloughs.—Brief furloughs will be granted to the volunteers in cases of emergency, by the governor, on recommendation of the director general.

Compensation.—Opportunity for service.

Wages, $1 per each secular day from date of enlistment.

Subsistence (board and lodging).

Uniforms (hat, blouse, breeches, leggins, shoes, overalls, and frock).

Medical attendance.

Transportation.

School credits.—Full school credits will be allowed volunteers on both the fall and spring terms when engaged in service. The leaders will also tutor the boys and as far as possible keep them up with their regular school work.

Parents' approval.—It will be necessary for each boy to secure the consent and approval of either his parents or guardian.

General administration.—All matters pertaining to misunderstandings, adjustments of labor difficulties, change of location or assignment, discipline, enlistment, furloughs, rank, discharge, or other general questions shall be referred to the director general.

NATIONAL CHILD LABOR COMMITTEE PROPOSALS.

To send any children to farms without knowing the actual need for them or without regulation would be wasteful and a hindrance to the farmers, who do not want a horde of inexperienced laborers on their hands. Therefore:

1. Create and appoint a State committee of school officials to confer with the State agricultural department and organizations of farmers to find out whether there is a real need of school children on farms.

2. If the need exists, draft a set of regulations to meet the need and at the same time protect the children, such as these:

(*a*) Children 14 and over only, to be permitted to work on farms for others than their parents, and excused from school for this purpose from June 1 to October 1.

(*b*) Children 14 and over only, to be permitted to work more than eight hours a day, or more than six days a week.

(*c*) Children thus excused must have special work permits, issued by the committee of school officials or persons authorized by them showing that the child has been examined by a physician and is physically fit for work, permits to be issued only for farms known by the committee to be suitable places for the children to work.

3. The State committee of school officials should be responsible for the supervision of children at work on farms to see that regulations are enforced. Transportation, feeding, and housing should all be supervised.

As to housing, it is advisable that children sent to farms to work should not be housed with the farmers.

It has been suggested that the Boy Scouts, for instance, can establish camps in a given farm district under Scout Masters. Local authorities will be glad to provide transportation from camps to farms, and the boys can work in gangs, in one field one day, in another the next, and return to camp after work. In this way both work and living conditions will be supervised, and farmers will not have the responsibility and cost of housing them.

Similar camps may be established under playground directors, probation or school officers.

But be sure you know where the children live and how.

England is already wishing she had not used her children so recklessly at the beginning of the war. Let America learn by England's experience.

The Massachusetts plan differed in details but not in spirit.

MILITARY TRAINING IN HIGH SCHOOLS.

In the enthusiasm subsequent to the entrance of this country into the war there were many who believed that military drill should be made compulsory for all boys in high schools. Indeed, before April, 1917, several private secondary schools had offered military training to their older students who hoped soon to enter officers' reserve camps. A few public high schools, notably those of Boston, had for some years given a form of military drill to its boys; and after the declaration of war many schools, especially those in cities, introduced military training, usually optional. Among the cities may be mentioned Dallas, El Paso, and Waco, Tex.; Aurora, Elgin, Moline, and Chicago, Ill.; Stamford, Conn., Louisville, Ky., Bangor, Me., Baltimore, Md., Springfield, Ohio, Johnstown, Pa., Pueblo, Colo., Kansas City, Mo., Richmond, Va., Providence, R. I., and most of the schools of Arizona. In Wyoming an elaborate system was developed and approved by the legislature by the grant of financial aid; the legislature of Oregon provided for an elective course in military tactics and training in high schools, to be directed and supervised by the governor; and the legislature of New York, without the approval of the State department of education, passed a law requiring military training of all the older youth. In Massachusetts and New Jersey more deliberate action was taken. Commissions composed of representatives of the schools, of business, of industry, and of the Army, were appointed to consider the problem. In both cases they disapproved military training in high schools.

The arguments for and against military training in high schools are summarized in the two following letters, which are quoted from the report of the State superintendent of public instruction of Minnesota for 1917:

FAVORABLE TO MILITARY TRAINING.

Some one has well said that one of the great defects of American life to-day is slouchiness—slouchiness of physique, slouchiness in the appearance of our towns and villages, slouchiness in the application of mind and body to the tasks of the day, slouchiness in discipline and responsiveness to orders in cooperative efforts of all kinds. Compulsory military training enforces on a boy promptness in obeying orders, and he must apply himself to a given task until it is satisfactorily finished. His mental and physical being must always be at the best. All of these phases are being introduced and emphasized when military training is taught. It must be introduced in a spirit of civic service, and the cadets must be taught that this is a part of their training for citizenship.

Our experience with military training for several years in the Rochester High School leads me to say that it is one of the very best courses that we have offered. The discipline of the school is very much better, the boys seeing the value of self-control and decent restraints. The cadets are interested in civic problems and their responsibilities. Citizens of Rochester will testify to the value of this training for their boys. I have yet to hear a complaint on the cadet organization in the Rochester High School from the parents of the boys taking this work.

The cost of this work is very slight, as we have asked the boys to buy their own suits and caps. This year the cost has advanced from $15 to about $23. The boys feel it keenly, and we have allowed them to take the drill and rifle practice without the regular cadet uniform. Lieut. W. F. Wright, of the local Machine Gun Co., is the drill master and receives a slight remuneration.

Drill is offered twice a week and rifle practice by squads once a week. During the winter season indoor drill and rifle practice are given, and during the spring, summer, and fall, outdoor practice. Interest in the organization is so keen that prominent citizens, who are members of the local rifle club, offered to take squads of cadets out to the rifle range. The rifle range is owned by the Machine Gun Co., the Rifle Club, and the cadet organization.

State-wide military training in high schools has been a decided success in the State of Wyoming, where legislative aid is granted. At first there was a great deal of opposition, but it now has the hearty approval of all the citizens of the State. The State superintendent of instruction has this to say: "I take this opportunity to express my hearty endorsement of the cadet work which is being done in Wyoming. For some time I have been watching the influence which it has exerted upon the young men enrolled in the various schools, and I wish to say that I consider it most valuable training for our high-school boys. I am glad to see the movement growing in popularity."

Finally, I wish to say that here is an organization in which the physical welfare of practically every high-school boy can be cared for. Football takes care of about 15 or 20, basketball about 10 or 15, baseball about 12 or 13; but in drill, setting up exercises, and rifle practice, every high-school boy may compete. Where the cadet movement has been tried, it is a success. Austin, Mankato, St. James, and Stillwater, in this State, are very successful in their experiments. Those who have tried the experiment can speak from experience, others can only guess, and those who oppose the movement are mostly guessers and mothers who did not raise their sons to be soldiers but want them to be mollycoddles.[1]

[1] Supt. H. A. Johnson, Rochester, Minn.

THE OPPOSING VIEW.

The world is suffering from a hysteria of fear. Fear has entered the courts of Europe and shaped the policies of kings. The nations at war to-day had but to look across their boundaries any night for the last 30 years to behold a horrid, grinning monster, ready to leap at their throats. They talked about "perils," until at last an emperor had himself pictured riding in the night of a black world-catastrophe, with uplifted sword, defying the "Yellow Peril." In these later days this fear has reached America. Congress appropriates hundreds of millions to banish fear, but it is not enough. Our schools must be enlisted in the desperate fight to lay this ghost of fear. And now this State will be asked, as others have been already, to introduce military drill into the curriculum of its public schools.

The purpose of this training is that our youth may be enabled to repel the attack of a foreign foe. And it is accepted by all, militarists included, that the prime qualification for a soldier, the necessity before everything else for the man who fights, is a sound, strong body. The advocates of military drill affirm that their system furnishes the best training for developing strength and endurance. If this were true, military drill might be justified: for a strong body is as essential to the arts of peace as to the arts of war. And may I interject that the demands of peace during the next 10 years will be a severer test upon American manhood than any war to come? But the claim is not true. And I call to witness those who know.

First, Dr. Sargent, veteran director of physical training at Harvard: "Military drill is not an adequate means for physical training. It is not only very limited in its activities, but actually harmful in its effects upon boys less than 18 or 20 years of age. It is apt to foster a bombastic spirit of 'tin-soldierism' and a false sense of patriotism which does not appreciate the seriousness of war nor the glories of the struggles of peace."

Dr. Herman Koehler, of West Point, in his "Physical Training in the Service," says: "The attributes, in order of importance, may be summed up as follows: (*a*) General health and bodily vigor; (*b*) muscular strength and endurance; (*c*) self-reliance; and (*d*) smartness, activity, and precision. It is upon the first of these—health and bodily vigor—that the development of all the other qualities so essential in a soldier are dependent, and for that reason the maintenance of robust health and the development of organic vigor should be considered the primary object of this training."

Sir William Aitkin, professor of pathology in the Army Medical School of England, says: "Boys given military training at 18 make soldiers who are less robust and efficient than men with whom this training was deferred a few years, remaining in civil life until after their bones, heart, and lungs were more matured and developed."

PHILADELPHIA, *May 8, 1916.*

To the Joint Committee on Higher Schools.

GENTLEMEN: The subcommittee on military training begs to report as follows:

The extension and development of the present method of physical training is strongly advised, supplemented by practical instruction in hygiene, prevention of disease, and immediate treatment of wounds and injuries.

I quote from the report of special commission on military education and reserve appointed by the Governor of Massachusetts, in June, 1915, consisting of a lawyer, a publisher, two college presidents, one manufacturer, one representative of union labor, and three retired generals, two paragraphs:

"The overwhelming weight of opinion from school teachers, military experts, officers of the Regular Army and the militia, and the general public is against military drill as defined in the first clause above. It is generally agreed that the military drill which a boy receives in school is of little or no advantage to him from the point of view of practical soldiering. As far as available evidence goes, drill in the schools has had no beneficial effect in promoting enlistments in the militia, except in a few

isolated localities. For various reasons it has seemed to create a dislike for soldiering. Military drill in the schools is objected to by many on the ground that boys of school age have not attained sufficient mental maturity to appreciate what war and fighting mean, and are therefore unable to digest the ideas which military drill presents to them in concrete form. It is worth noting that military drill as such is given in the schools of no countries of the world except Australia and Japan.

"The commission does not recommend military drill, but is opposed to it."

The judgment of the men who know of committees and commissions and of nations is against military drill in public schools. France and Germany have both tried it, and have abandoned it for a more rational system of physical training. Any person who will inspect the physical training given by skilled experts in our public schools will find now all that is desirable in military drill, much more that is desirable added, and whatever is undesirable eliminated. He will see youths, both boys and girls, in large groups, executing complicated movements with precision worthy of trained soldiers. He will hear the sharp command; he will see instant obedience to authority. He will be proud of these boys and girls, physically fit, ready to glorify their country in peace, and, if it must be, in honorable war.[1]

The nature of the military training offered in our high schools has varied widely—from mere marching in formation to the study of tactics. Richmond, Va., has published its course of study in military training, which consists of five hours a week for each class. First year—drill, three hours; signaling and marksmanship, two hours. Second year—drill, three hours; company administration and organization and military hygiene, two hours. Third year—drill, three hours; map reading and field engineering, two hours. Fourth year—drill, three hours; tactics and leadership, two hours. This is a part of the Wyoming plan of military training, concerning which much has been published. The purposes of the military training, like its nature, have varied widely—from improvement in physical well-being to military preparedness and moral development. The last-mentioned purpose assumes a general transfer of training that has nowhere, especially in countries where such training of adults has been most firmly established, been proved or even largely claimed. The examination of the young men who entered the National Army has emphasized, as the schoolman has never been able to do, the need of serious and continued physical training of our boys and girls; and usually military drill in high schools has been justified as contributing to this end. The recent manuals on physical education issued by the States of New Jersey and New York are admirable outlines of work that should be enforced in all high schools.

THE FUTURE OF THE HIGH SCHOOL.

It is generally recognized that the high school is in the critical stage of its development; no other phase of public education is so often discussed and so little understood. Having attained during

[1] Asst. Supt. W. F Webster, Minneapolis, Minn.

the past generation a marvelous physical growth and a gratifying improvement in its internal administration, it remains now to be defined and directed purposefully and effectively toward ends consonant not only with elementary and higher education but also with the larger aims of national life. Before this can be satisfactorily done, the newer spirit of democracy and national ideals must be clearly formulated and accepted throughout the Nation as a basis for all national life. Then, to make opportunities equal for all the youth of our country, there must be extensive aid by the Federal Government to public high schools, which will thus be recognized as an effective instrument in training leaders in the upbuilding of national welfare. On the basis of definitely declared and accepted ideals of democracy, and with the aid of a Federal subsidy, professionally trained principals and teachers of the finest qualities must be secured to reform and redirect not merely the curricula and courses of study but also the social activities of the high schools. Then, and not till then, may we expect them to reach their highest efficiency as agencies in the development of the Nation.

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PUBLIC EDUCATION IN THE CITIES *of the* UNITED STATES

By

J. H. VAN SICKLE, JOHN WHYTE, AND
W. S. DEFFENBAUGH

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PUBLIC EDUCATION IN THE CITIES OF THE UNITED STATES.

CONTENTS.—I. The larger cities: Introductory—Americanization—Elimination of German and the teaching of foreign languages—Junior high schools—Vocational education—The Gary School—Military training in the schools—War activities in the schools—Conclusion. II. The smaller cities: Administration—School board rules and regulations—The superintendent—The survey in school administration—Salaries and promotions of teachers—Duplicate schools—Supervised study—The war and the small city schools.

I. THE LARGER CITIES.

By J. H. VAN SICKLE, *Superintendent of Schools, Springfield, Mass.*, and JOHN WHYTE, *New York University.*

Long before America's entry into the great war, education in the larger cities, in common with every other aspect of our national life, was reacting to the great conflict across the seas. Our educational authorities were watching carefully the effects of the war upon European education, with a view to appropriating for our purposes the educationally fruitful ideas that were coming from the cataclysmic struggle, in which we had as yet no part; but as the months passed and the inevitability of our being drawn into the struggle became apparent, theoretical discussion as to the wisdom of this or that educational innovation of England or France gave way to the immediate consideration of the relation of the schools to the problem of war itself, in the event of our entering it. The schools were analyzed as to their part in a great preparedness program, and every phase of educational activity was scrutinized as to its potential contribution for service to a country at war. With the entry of America into the war, the slogan for the schools became "Win the War," and the solution of all the school problems was approached from that angle, for it was soon realized that the schools had become an essential part of the very machinery of modern war. That slogan is still, after 18 months of America's participation in the war, the determining factor in any consideration of educational problems, but already the problem of reconstruction is forcing its attention on the schools with an emphasis that is sure to become more and more insistent. And rightly so, for it is very apparent that a great many of the

educational problems of a country at war are and will be the problems of a country at peace, with the exception that in war their seriousness is accentuated and their immediate solution demanded. Hence it is frequently possible—and where it is possible, it is surely the part of wisdom to act accordingly—to unite the discussion of the best educational measures for a "Win the War" policy to a discussion of the applicability of those measures to post-war programs. By so doing we shall be proceeding along the lines of the warring European nations (particularly England and France), who under the compulsion of the times have adjusted their education to war and at the same time have not neglected planning and even executing in part such a revision of their whole educational policy as will best make up for the derelictions of the past and insure the future. Unless we proceed similarly, it is likely that after the war, when our problems seem less acute, lacking the stimulus of a great catastrophe, we shall try to solve them in the same haphazard, indifferent way that has characterized our attempts at this solution in the past.

The latest example of the long look ahead toward the closer relations, commercial and otherwise, which are sure to obtain between the allied nations is furnished by France, which through the French high commission has arranged to send to the High School of Commerce, of Springfield, Mass., for an intensive course of two years in American business practice, 35 young women, about 18 years of age, who have had a preliminary education equivalent to that of a graduate of an American secondary school. These are daughters of French officers who were killed in the war. This is probably but the vanguard of a larger delegation of young women who, if the initial experiment is successful, will be sent to this and other similar institutions in this country for preparation to carry on work in French business houses. It will be necessary for them, after the war, to take the places of men who have lost their lives or been incapacitated by their injuries. The advantages of the plan, while marked on the side of commercial relations, are equally significant on the social side.

It is the wish of the members of the French high commission to have these girls made acquainted with the home life of the people of America, and to this end arrangements have been made by which they are to be taken into the homes of representative people of the city and treated not as boarders but as members of the families in which they may be placed.

It has been suggested that after the termination of the war a reciprocal arrangement may be made for the exchange of pupils between France and this country, and this may prove to be one of the factors that will bind together more firmly than ever the people of these two Republics.

AMERICANIZATION.

In the category of problems that has been thrown into especial prominence by the war, but whose solution belongs not only to war but to the future, is the great problem of the Americanization of the immigrant. Before the war it was a problem that engaged strenuous efforts only on the part of welfare and settlement workers and sociologists and remained in the eyes of a great many educators a more or less academic sentimental issue. To be sure, some provision had been made for certain aspects of the solution of the problem, e. g., for the teaching of English; and some States, such as Massachusetts, had even demanded compulsory attendance at evening school of minors of 16 to 21 who could not read and write up to the fourth-grade standard; but the enforcement of such laws was dependent upon the maintenance of evening schools by the towns and cities of the States, and far too few provided adequate facilities and financial support for such apparently extra curricula and irrelevant matter. But with the war came the sudden realization of the vital importance of the immigrant as a factor in the winning of the war. The revelation of the 1910 census that there were 5,516,316 people in the United States who could not read or write had evoked little comment and a few adequate remedial measures, but the fact that, of approximately 10,000,000 registrants for the selective draft, 700,000 could not sign their names aroused even the most apathetic to the serious impairment of our military efficiency revealed by such figures. With 1 out of 13 unable to respond intelligently to military or industrial orders on the one hand, and moral and spiritual appeals on the other, all because of lack of a common medium, the necessity for immediate action on the part of the schools became a matter of national importance. Additional facilities for Americanization were speedily provided, and the teaching of English to the immigrant as the first step in Americanization engaged the serious attention of school authorities all over the country.

THE IMMIGRANT AND THE NIGHT SCHOOLS.

There is a tendency to blame the immigrant for his failure to learn the language of his new country. But, as a general rule, his failure can be attributed less to his lack of desire than to his lack of opportunity. The opportunity must be given him in every community by ample provision for night schools that shall be looked upon as an integral part of the functions of the schools of America. Up to the present the night school has been treated as a foster-child, maltreated and even disinherited when the budget required. If the wisely conceived plan of the National Committee on Illiteracy is

to be realized, i. e., the utilization of all the school machinery of the country in the teaching of the foreign illiterate, the administrative wisdom of educational authorities will be taxed as never before to solve the pedagogical and financial problems that will come from this broadening of the school's functions.

THE TEACHING OF ENGLISH TO THE IMMIGRANT.

The fallacy that teaching English to foreigners is a simple, secondary matter, and may be safely entrusted to any who can be found to accept the pittance allowed such instruction, needs apparently to be demonstrated, for the policy of most night-school instruction in English rests upon this fallacy. It is time that educators realized that English for the foreigner is a foreign language and that the giving of instruction in foreign languages in our educational scheme has always presupposed a certain technique of instruction and a certain minimum at least of preparation and specialization.

ENGLISH AND THE PROBLEM OF AMERICANIZATION.

The selection, preparation, and organization of night-school teachers ought therefore to engage the most serious attention of school administrators, and particularly, because it is through the foreign language, English in this instance, that the immigrant's first introduction to the customs, thoughts, and ideals of the new country may come. The night-school instructor becomes, nolens volens, the interpreter of America to the newcomer—the mediator between the old and the new. To mediate effectively he should incarnate the best of his country and be able to approach the foreigner sympathetically. He should realize that he is one of the instruments that is trying to effect the blending of all the racial elements—the Slav, the Teuton, the Celt, the Anglo-Saxon—into a distinct racial cultural entity. That blending can not be commanded. Under the stress of war and under the compelling idealism of a Wilson, a "War Americanization" has taken place. The whole country has supported unitedly the compulsory service act and has given almost unwavering support to the policies of its President.

And the great struggle of all the races in a common cause will surely have constituted, when the war is over, a great step in that Americanization and democratization that all have desired. But with the conclusion of peace there will be lacking the urgent appeal for Americanization that the war has brought with it. The necessity will still exist, and it is even possible that, with the recrudescence of an intensified national feeling everywhere and the awakening of new nations from the suppressed national groups of Europe,

the nationalistic feelings of the foreign groups in America may be intensified and provide added difficulties to the process of assimilation. It is for the educators of the country to realize the importance of Americanization not only as a war program but as a peace program, and always as a problem for whose solution specialists on immigration, social welfare, and settlement work should be invoked.

DIFFICULTIES IN THE WAY OF AMERICANIZATION.

The insistence on English as a prerequisite to Americanization is one thing, but the sudden and radical suppression of all foreign languages by city or State command is another, and is likely to defeat the very ends that are sought for. Presenting American ideals and customs is one thing, but attempting to *command* immediate and utter forgetfulness of the old country is another, and perhaps the very way to insure in this country unassimilable foreign groups after the model of those existing in such countries as Austria, Hungary, Russia, and Germany where repression has marked the treatment of alien groups. The normal course of Americanization in many parts of the country with respect to English has so far been from the uni-lingualism of the immigrant to the bilingualism of the second generation, to the uni-lingualism (English) of the third generation. Whenever the process is slower, there is the likelihood that there is maintaining itself a distinct racial unit that may be holding too vigorously to all of its foreign habits and customs. Such a state of affairs demands the attention of immigrant and welfare experts. An analysis may prove that a great deal of responsibility for it may rest on the American of older generations who by his indifference and social exclusiveness has thwarted the initial impulses toward Americanization. It is difficult to see, however, how this normal process can be greatly accelerated without detriment to the immigrant and to his new country. Competent observers have remarked the deterioration that is evident in that immigrant who has contemptuously stripped himself overnight of all the customs and habits of his old country, for in their stead he has too frequently appropriated a shoddy Americanism of the streets. The problem that confronts those who would deal intelligently with the immigrant is how to transmute the real value that the foreigner brings with him into the new Americanism. The common assumption that the foreigner has nothing to lose and everything to gain in the transition; that he has nothing of himself, his background, his country to give in exchange for what he receives, makes both him and the new country the losers. The spirit of Americans of older stock should be that so well expressed by the Secretary of the Interior, Mr. Lane, in his opening address at the National Conference on Americanization (Apr. 3, 1918). The keynote of the conference, "Our Responsibility,"

was struck in this address. His frank recognition of the seriousness of the problem, his assumption for the shoulders of the older Americans of their great responsibility in its solution, and the sympathetic spirit with which he meets the immigrant need to become the common possession of those school authorities into whose hands are to a great degree committed the solution of the great issue. To quote:

> We are trying a great experiment in the United States. Can we gather together from all ends of the earth people of different races, creeds, conditions, and aspirations, who can be merged into one? If we can not do this, we will fail. * * *
>
> There is no such thing as an American race, excepting the Indian. We are fashioning a new people. We are doing the unprecedented thing in saying that Slav, Teuton, Celt, and the other races that make up the civilized world are capable of being blended. * * * Out of this conference should come, not a determination to make more hard the difficult way of those who do not speak or read our tongue, but a determination to deal in a catholic and sympathetic spirit with those who can be led to follow in the way of this Nation.

To this blending, then, the Slav, the Teuton, the Celt, the Anglo-Saxon, the Romance, and other races are to contribute. That Italian boy born with the soul of an Italian poet must contribute that poetic soul to America. If in his Americanization he loses it, both he and America have lost. That Slav with his wealth of folk song and legend must contribute that to America. It is only thus that there shall come to pass that great new America in which shall be fused the first attributes of all peoples and races. Toward the consummation of that end educators must devote their best efforts.

ELIMINATION OF GERMAN AND THE TEACHING OF FOREIGN LANGUAGES.

Under the pressure of popular feeling, the teaching of German was forbidden in thousands of communities in America. The agitation in favor of its elimination was such that few school boards or superintendents insisted on its retention. New York eliminated all beginners' classes, thus abolishing all German in three years. Philadelphia abolished it entirely. Many, but by no means all, of the larger cities of the country followed suit.

Some whole States, such as Iowa, Delaware, Montana, etc., forbade the teaching of German in all schools.

The attitude toward this question in some of the more conservative of the larger cities is illustrated by the following paragraph from the last annual report of the Portland, Oreg., schools, L. R. Alderman, superintendent:

> I have been asked repeatedly concerning the attitude the Portland schools will take regarding the teaching of German and French. Some have asked if we expect to do away with the former and increase the work in the latter.

Now, it is well known that Americans are deficient in language study. Europeans have been stimulated to understand the tongues of their near neighbors; but separated as we have been by great oceans, we have lived on without feeling the need of mastering any language save our own. But now comes the present stimulus. We are concerned as never before in our national life with events and developments in Europe. We wish to gain for ourselves the fine literature, art, and science of the Old World. We confidently trust that a time is near at hand when all nations will be united in a compact of enduring peace; and when such a time comes we all shall need to know the languages of other nations. The boys and girls in the high school will be the leaders of the coming age. They must be prepared to meet the requirements at that time. Spanish must be learned, French must be learned, German must be learned, and learned with more enthusiasm than ever before.

The results on the education of the country can not be measured as yet. One of the immediate results was the rapid increase in the teaching of Spanish. The lack of properly equipped teachers of Spanish seemed to be no barrier; the jobless teachers of German became teachers of Spanish almost overnight. Courses were discontinued without notice and students' programs were shifted about in a demoralizing fashion. High-school students preparing for chemistry or other scientific professions, who had chosen German as an essential part of their preparation, were suddenly informed that the study of German even for such purposes was not necessary.

American educational authorities would do well at this time to consider the report presented (in 1918) by the committee appointed by the prime minister to inquire into the position of modern languages in the educational system of Great Britain. It was a strong committee, presided over by Stanley Leathes, a civil-service commissioner and one of the editors of the Cambridge Modern History, and including several distinguished persons, such as Sir Maurice de Bunsen, late ambassador at Vienna; Dr. H. A. L. Fisher, now minister of education; Dr. Walter Leaf, the well-known banker and translator of Homer. The report emphasized the special need for foreign languages for the conditions after the war and asked for increased instruction in modern languages. It placed French at the head of the list both for cultural and commercial purposes, and German close behind it, and then Italian, Russian, and Spanish. It came "to the conclusion that it is of essential importance to the nation that the study of the German language should be not only maintained but extended." To what extent the findings and conclusions of the Leathes committee lack pertinence for American conditions is a question that ought to be answered by the same type of scientific investigation that prompted the research of the Leathes commission. It is obvious, however, that British ranking of Spanish is too low for American conditions, in view of our colonial and South American relations.

JUNIOR HIGH SCHOOLS.

The rapid growth of junior high schools has been one of the outstanding educational developments of the years 1916–1918. Wherever a reorganization of the school system has been under contemplation, the organization of a junior high school seems to have found favor. The reasons for its favor lay somewhat, to be sure, in the fact that it seemed to involve no such violent change as would disorganize or demoralize even temporarily at least the school organization. And that is, of course, a commendable feature and has surely accelerated its introduction. But its comparatively easy incorporation into the present system contains dangers that must be avoided. It is patent that, in order to serve the ends that educators have purposed for the junior high school, it must involve a reorganization that is more than a mere numerical regrouping of the school years; it must contain and conserve above all those provisions for the educational guidance of the individual pupil in a wide, flexible, adaptable curriculum for which it was established.

It is not unlikely that five years may see its inclusion in the majority of the schools of the country. Prof. Davis, of Ann Arbor, has investigated the junior high schools in the North Central Association territory, 1917–18, and has found that about one-fourth (2,931) of the accredited schools contained the junior high school, and that one-fourth of this fourth (72) had been organized in 1917. The year 1918, Prof. Davis asserts, will show an even greater number of new junior high schools. The growth in the North Central Association has been fairly typical of the whole country.

In a plea for the reorganization of the school system of Greater New York, Mr. Somers submitted the following resolution, which was adopted by the board:

> That the board of superintendents be requested to appoint a special committee of three associate and five district superintendents to investigate and report upon the desirability and advisability of organizing our schools on the basis of a six-year elementary, a three-year intermediate, and a three-year high-school grouping.

VOCATIONAL EDUCATION.

The Great War has demonstrated as nothing else could, the national need for vocationally trained men and women. In recognition of that need the Sixty-fourth Congress passed the Smith-Hughes Act, which was signed by the President February 23, 1917. It provides for the promotion of vocational education; for cooperation with the States in the promotion of such education in agriculture and the trades and industries; for cooperation with the States in the preparation of teachers of vocational subjects; and for the ap-

propriation of money and the regulation of its expenditure. The moneys set apart by Congress are granted on a graduated scale, beginning with $1,860,000 in 1917–18, and increasing to $7,367,000 in 1925–26, at which amount they are continued indefinitely. The amount appropriated to any State must be matched by that State, to become available. Under the impetus of the Smith-Hughes Act vocational education has taken a great leap forward. The movement in support of trade schools and continuation schools has been accelerated. It is obvious that, with the shortage of labor and building material and the constant readjustments in teaching force due to the war, the adequate introduction and trying out of vocational training on a nation-wide scale must wait for more normal times. In the meantime, investigation as to the best methods of arriving at the end desired can be carried on, for there are not lacking those who, admitting the wisdom of the Smith-Hughes Act, are fearful lest in its administration it fail to achieve the great and easily recognizable national benefits for which it was passed. The Carnegie Foundation, for example, has reached the conclusion that the Smith-Hughes Act is reproducing the history of the Morrill Act in involving the Federal Government in great expenditures of money before a sound educational policy and system of supervision have been formulated. There are some educators who, welcoming the idea of more vocational training, see the unity of the educational system threatened—class education fostered by a kind of enforced predestination of trade or profession; in other words, that type of dualism in education inaugurated that has existed in Germany and must not be incorporated into American education, just at a time when Germany is reverting to an "Einheitschule" in an attempt to correct the evils of her undemocratic class education. It would seem that the whole matter is one which wise administration can solve by a frank recognition of the dangers involved, and by a scientific endeavor to remove these dangers.

THE GARY SCHOOL.

Vocational education after the Gary School type received a setback in New York City with the election of Mayor Hylan. Introduced as a part of a political program by Mayor Mitchell, it remained always a political issue and was continually subjected to the passion of political struggle. It was one of the chief issues in the last mayoralty campaign, and went down to defeat with its sponsor. The new school board under the new administration proceeded at once to "de-Garyize" the schools, and with the election of Mr. Ettinger as superintendent it is quite likely that the so-called Ettinger plan, with its prevocational opportunities for the seventh or eighth grades,

will be generally introduced. The Ettinger plan may, of course, lead to the junior high school or at least some compromise with it.

Advocates of the Gary School in New York City will always feel that the new system was not sufficiently tested, that four years' Garyizing of only a few schools did not provide sufficient data for its summary rejection. Opponents of the Gary school, unaffected by the political aspects of the question, can retort that the introduction of such a radical departure in such a vast organization as that of the New York schools was sure to meet with insuperable difficulties. The failure of the Gary schools in New York can as yet hardly be looked upon as an indictment of the Gary School scheme except as to its applicability to all the conditions of New York. Other communities may find in it all that Gary has found in it. Whatever may be the losses that may have come to New York through its adoption and rejection, the Gary School idea has at least served to accentuate the great import of vocational training for the whole country by the publicity that the New York experience has given it.

MILITARY TRAINING IN THE SCHOOLS.

Even before America's entry into the war the question of military training in the schools had become a much debated issue. Some States, such as New York, had by State legislation provided for military training in the schools of the State. The consensus of the opinion of educators opposed its introduction, and the committee on military training of the department of superintendence presented a report against it at the annual meeting of the superintendents in 1917. The report was adopted almost unanimously. The committee in its recommendations (1) asked for universal military training for young men 19 to 21 years of age, (2) protested against military training and military drill in the elementary or secondary schools, (3) advocated thorough compulsory physical training for boys and girls, (4) favored compulsory medical inspection, (5) encouraged outdoor camp life and camp activities, (6) placed new emphasis on patriotic and civic service as a prominent feature of an American education.

WAR ACTIVITIES IN THE SCHOOLS.

The availability of the schools for war purposes became apparent soon after the declaration of war. The school children became volunteers in Liberty Loan drives, Red Cross drives, and in every activity in connection with the war in which they could partake effectively. It is not too little to say that they played a vital part in the material and spiritual organization of the country in support of the war. Nor was their activity confined to the school year. Thousands of boys were mobilized during the vacation months for work on the

farms, and it has been due to their efforts that the farmer has been able to meet the shortage of labor and to harvest his crops. Thus in a very direct way the schools have come to the support of the American Army in France and to the vast suffering civilian populations of the allied countries.

CONCLUSION.

The period in which we are living is one of rapid flux and transition, and those in control of public education must so recognize it. They must be ready to meet every emergency. They must be prepared to cope with the problem of the returned, disabled soldier. Thy must keep open-minded toward all the great problems of reconstruction and the radical readjustments they may bring with them. America's experiences in the war will certainly lead her to certain new conclusions. But it is well to be reminded that European countries have a three years' start on the problems with which we must cope. We can learn from them. Educational journals are wisely opening their pages to detailed analyses of the changes that are taking place in the educational thought of Europe. If we are to remain abreast, we must even now be grappling with the same problems that have made for such radical revisions in the educational policies of the warring countries. It is only thus that we can prepare for the great reconstruction.

II. THE SMALLER CITIES.

(With less than 25,000 population.)

By W. S. Deffenbaugh,
Specialist in City School Administration.

A chapter treating of progress in education for a period of one or two years must deal principally with the change in the machinery of education. It is not the purpose of this chapter to show how much better children in the small cities are being educated now than a year or two ago. The aim is to summarize changes in administrative machinery observed from correspondence with superintendents in the smaller cities, from city school reports and other publications.

Among the significant changes that may be mentioned are the enactment of a general education law for the cities of the State of New York, simplified school-board rules and regulations, a greater interest in the scientific study of educational problems, salary schedules based to a certain extent upon merit, greater attention to industrial work,

home economics, and physical training, and the use of the schools for disseminating information regarding the war.

ADMINISTRATION.

During the past two years, few if any changes by special charter provision have been made in the manner of electing school-board members, in the number of members, or in the relation of the school board to the city council. In fact, few of the smaller city schools are now governed in any way by special charter provision. Most of the States have enacted general education laws to include the cities of the State. The State of New York is the latest to enact such a law. In that State the school systems of the several cities were operated and controlled under the provisions of nearly 250 separate acts enacted from the year 1829 down to and including the year 1915. These various laws of the legislature contained 600 pages of printed matter simply to create the necessary machinery to operate the school systems of the several cities. Many of these acts had become obsolete, many conflicting provisions were found in them, and in some cases every section of the law relating to the school system of the city had been amended, in some instances a single section having been amended a dozen or more times. Many of the provisions of these laws were mandatory in instances where the statutes should give school authorities discretionary power, and the statutes relating to the great majority of these cities so limited and restricted the functions of the local school officers that they did not have the authority to exercise many functions which a board of education should exercise in order to maintain and operate a school system in accordance with the public sentiment of the city over which it exercised jurisdiction.

The situation in the State of New York was the cause of many special bills being introduced into the legislature each year for the purpose of amending the several acts so as to give local school authorities the power to execute certain powers in relation to the local school systems which are desired by the people of the several cities. For illustration, one city went to the legislature to obtain authority, which it did not have under existing law, to submit to the voters of that city a proposition to expend $40,000 for the erection of an elementary school building. Another city which had erected a new school building and abandoned an old one did not possess the authority to sell the abandoned school property. It was necessary to go to the legislature to obtain authority for that purpose.

In order to provide better administrative machinery for the schools of the several cities of the State, the education department prepared and caused to be introduced into the legislature a bill which repealed all the special acts and substituted for the 600 pages of printed matter a law which contains about 20 pages. The bill was enacted into law during the session of the legislature in 1917.

The chief advantages claimed for this law are:

1. It is simple and clear and easily understood by those who must administer it.

2. It confers broad powers upon boards of education in the several cities of the State, so as to operate and manage their schools as the residents of the city may desire and to adjust the school organization to the necessities of new and changing conditions from year to year.

3. It gives greater powers to localities than they have ever before exercised, and it eliminates many of the useless mandatory and restrictive provisions contained in the old, complicated, and obsolete statutes.

4. It fixes responsibility upon those who manage the schools.

That the powers and duties conferred by the general education law upon city boards of education in the State of New York are broad and permit cities to expand their educational system is evident from the fact that school boards have power to prepare an annual estimate for the following purposes:

(*a*) The salary of the superintendent of schools, associate, district, or other superintendents, examiners, directors, supervisors, principals, teachers, lecturers, special instructors, auditors, medical inspectors, nurses, attendance officers, clerks, and janitors, and the salary, fees, or compensation of all other employees appointed or employed by said board of education.

(*b*) The other necessary incidental and contingent expenses, including ordinary repairs to buildings and the purchase of fuel and light, supplies, textbooks, school apparatus, books, furniture and fixtures, and other articles and service necessary for the proper maintenance, operation, and support of the schools, libraries, and other educational, social, or recreational affairs and interests under its management and direction. The provisions of this section in regard to the purchase of light shall not apply to a city having a population of 1,000,000 or more.

(*c*) The remodeling or enlarging of buildings under its control and management, the construction of new buildings for uses authorized by this chapter and the furnishing and equipment thereof, the purchase of real property for new sites, additions to present sites, playgrounds, or recreation centers and other educational or social purposes, and to meet any other indebtedness or liability incurred under the provisions of this chapter or other statutes, or any other expenses which the board of education is authorized to incur.

SCHOOL BOARD RULES AND REGULATIONS.

The rules and regulations of a school board are not often revised, but a sufficient number of school boards have taken this action within the past few years to show that the tendency is toward fewer and more definite rules. Too many regulations seriously confuse. The teacher who manages her school with the least effort usually makes few rules. School boards can learn from the experience of teachers in this respect not to hamper the superintendent and others by making rules to cover every conceivable point.

The rules and regulations adopted by the school board at East Orange, N. J., may be given as an example of the kind that most progressive school boards are adopting. These rules are in accordance with two interesting principles of school adminstration: (1) Legislative action by the school board as a whole; (2) centralization of executive authority in the superintendent.

Article II of the rules and regulations of that city, which treats of the organization of the school system, and Article III, relating to the duties of the executive officer, are quoted as a type of the kind of rules that school boards in the smaller cities could well adopt:

ARTICLE II. ORGANIZATION OF THE SCHOOL SYSTEM.

SECTION 1. *Departments and Their Functions.* There shall be three departments, to be known as the Department of Instruction, the Department of Records and Finance, and the Department of Buildings and Grounds.

Instruction. The department of instruction shall comprise all the activities that directly affect the welfare of the pupils, such as teaching, discipline, attendance, and medical inspection. The superintendent of schools shall have charge of this department.

The department of records and finance shall comprise the more strictly business activities of the board, such as keeping records, the making of contracts, purchases, and the custody and expenditure of funds. The secretary of the board shall have charge of this department.

Buildings and Grounds. The department of buildings and grounds shall be responsible for the physical upkeep of the school property, including repairs, renovation, and new construction. The supervisor of buildings and grounds shall have charge of this department.

ARTICLE III. EXECUTIVE OFFICERS AND DUTIES.

SECTION 1. *Superintendent of Schools.* The superintendent of schools shall, under the direction of the board of education, and in accordance with its rules and regulations, have the general management of the school system.

Duties. He shall, unless excused by the board, attend all regular and special meetings of the board of education, and of committees, and shall have a right to speak, but not to vote.

All communications to the board from principals, supervisors, teachers, or other employees shall be submitted through the superintendent of schools. Communications from teachers shall also be first submitted to their respective principals. All such communications shall be referred to the board at the next regular meeting by the superintendent with or without recommendations. But nothing in this paragraph shall be construed as denying the right to appeal to the board of any member of the school system.

The superintendent shall recommend to the board for appointment principals, supervisors, teachers, and others to be engaged in the work of instruction or discipline, also school doctors, nurses, and attendance officers. With the advice of the supervisor of buildings and grounds, he shall also recommend for appointment engineers, janitors, mechanics, and other assistants. In the same manner he may recommend the removal of any employees whose services are no longer required. All recommendations provided for in this section shall be made in writing, excepting in the case of substitutes for temporary periods, where no action by the board is necessary.

The superintendent shall assign principals, teachers, and others employed in the department of instruction to their duties, and make necessary transfers, reporting such action to the board at the next regular meeting.

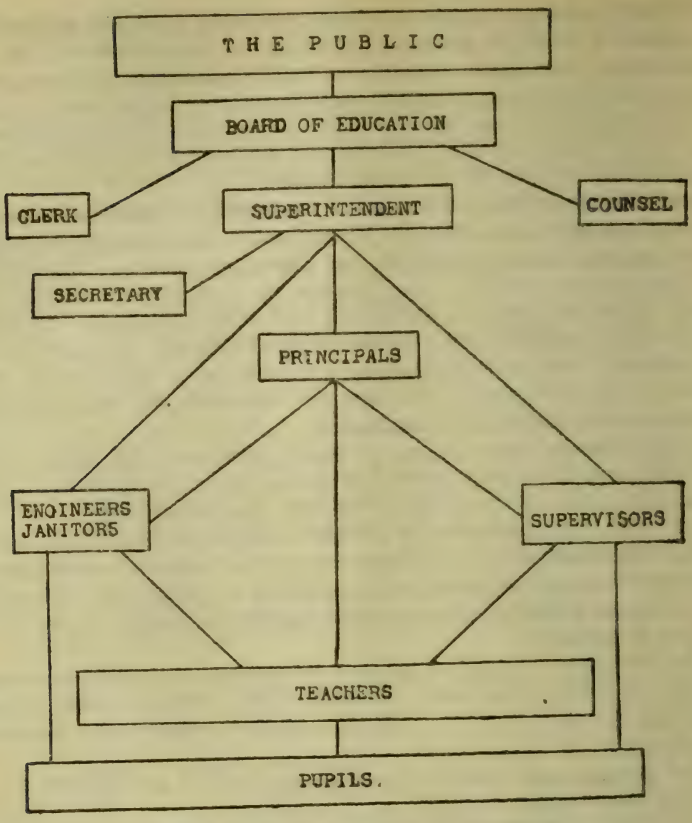
He shall, with the cooperation of principals and supervisors, plan courses of study, time schedules, etc., for all departments, and supervise their operation; but he shall submit to the board for its approval any important changes which call for a radical departure from accepted policies, or which require increased expenditure of money.

With the cooperation of principals and supervisors, the superintendent shall recommend appropriate text and reference books, school supplies, apparatus, and furniture for the use of the schools, and shall submit such recommendations to the board for its approval.

He shall prepare the annual budget before April 1 and submit it to the board at the next regular meeting.

He shall submit a report to the board in writing at least once a month, with recommendations for action. This report shall be mailed to each member of the board at least 48 hours before the board meeting, and any further particulars may be submitted in writing at the meeting. He shall prepare a general report on the condition of the public schools at the close of the school year. He shall prepare and submit to the board any special reports which may be required. He shall attend to all other necessary details of administration, and shall faithfully perform such other duties as may be required of him by the board of education or the laws of the State of New Jersey.

Huron, S. Dak., and Mansfield, Mass., may be given as examples of other cities that have simplified the administrative machinery of their school systems. The following chart shows the plan of the organization of the school system of Huron:



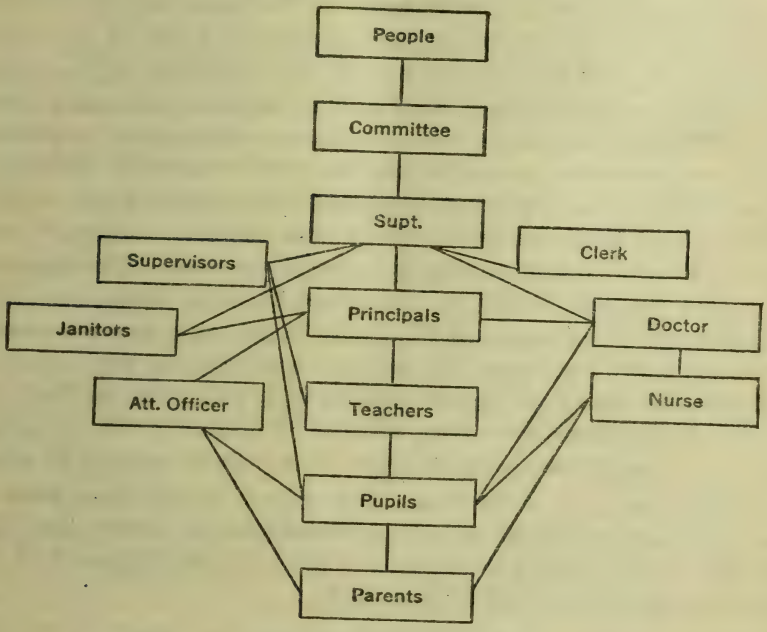
HURON PLAN OF SCHOOL ORGANIZATION

By this plan the board of education legislates, the superintendent executes, the board acts as a whole without standing committees. The board of education holds the superintendent responsible for an efficient execution of its orders. This reponsibility is distributed by the superintendent to all members of his staff, the principals having the responsibility of the first degree next to the superintendent. Within his or her particular field of activity, the superintendent holds each of his staff responsible for effective results, the only way by which to secure them.

With the delegation of responsibility, there must go commensurate authority. The superintendent must uphold the authority of each member of his staff within his or her field of responsibility. Pupils are amenable to the management of their teachers and of special supervisors, and at times to that of janitors and engineers. The teachers work under their principals and cooperate with the janitors. The principals, janitors, and supervisors cooperate directly with the superintendent, who is the means of communication between all members of his staff and the board of education.

The school board at Mansfield, Mass., may also be mentioned as having simplified the organization of its school system. The superintendent has been made secretary of the school board, thus centering the executive work under one head. This makes the superintendent responsible for the bookkeeping, purchasing, correspondence, records, and other clerical matters, as well as for the administration and supervision of instruction. The making of the superintendent the secretary of the school board in a small city should always carry with it sufficient clerical assistance to relieve him of details.

The organization of the school system at Mansfield in relation to the community may be pictured as follows:



It will be noted that—(1) the board is responsible to the town for the control of the schools; (2) the superintendent is responsible to the board for the expert management of the schools; (3) the principals are responsible to the superintendent for buildings, teachers, pupils, and janitors; (4) teachers and janitors are responsible to the superintendent and principal.

In the three cities just cited as examples of those that have reorganized the administrative machinery of their schools all standing committees have been abolished. School boards as a rule are reducing the number of such committees or discontinuing them altogether. The plan of having many committees originated with many school boards when they were larger than they now are. As a rule the larger boards have more committees than the small boards.

Though the size of school boards has been reduced by legal enactment this evil of many standing committees, characteristic of the large board, persists in not a few cities. These have hung on as a sort of vermiform appendix, having no useful function and often causing internal trouble. In not a few of the smaller cities there are still as many standing committees as there are board members, it not being uncommon for each member to hold a chairmanship, which is about the only excuse for the existence of many of the committees, since there is nothing in particular for them to do. In the absence of a genuine need, too frequently they take upon themselves duties that belong to the professional experts employed by the school board. On the other hand, if the board acts as a whole, responsibility can be placed on each member and not on an elusive committee; all business, not part of it, is considered by the entire board and all members must be intimately familiar with every phase of it. Such an arrangement insures better correlations and more harmonious expenditures, expedites business, and avoids the shifting of responsibility. One argument sometimes advanced in favor of committees is that they can meet and go over the work assigned them without having it discussed openly in board meeting. The argument that school business should be transacted through committees so as not to attract the attention of the public is not valid in a democracy. The school board represents the people who should be kept informed of the disposition of all school matters that affect the general public. There are times, it is true, when it is necessary for the school board or a special committee to discuss in private matters in which only individuals are interested. The school boards that have reduced the number of their standing committees, or, better, that have abolished them, have without doubt taken a step forward in the efficient administration of their schools.

THE SUPERINTENDENT.

School board rules and State legislation have gradually recognized the importance of the office of city superintendent of schools. The qualifications for the office have been raised and more power granted the superintendent. For example, the recently enacted general education law of the State of New York takes cognizance of the city superintendent, setting forth the qualifications for a city superintendent in that State and his powers and duties. A provision of the law is that in all cities except in those of the first class a superintendent shall serve at the pleasure of the board. This is an unusual provision. The argument for such provision is that if a superintendent is to be the executive officer of the school board, he should be requested to resign at any time he can not or does not carry out the

plans of the board, and that it means a longer tenure for the majority of superintendents. When superintendents are elected for a term of two or three years and are required to come up for reelection, all the enemies he has made concentrate their forces upon the school board. The expiration of a superintendent's term is a signal for them to act. If he serves at the pleasure of the board, there is no one time when opposition is invited.

The standard for the office of city superintendent is placed by the recently enacted general education law of the State of New York on a higher basis than in most other States. He must be—

1. A graduate of a college or university approved by the University of the State of New York, and have had at least five years' successful experience in the teaching or in the supervision of public schools since graduation; or

2. A holder of a superintendent's certificate issued by the commissioner of education under regulations prescribed by the regents of the University of the State of New York, and have had at least 10 years' successful experience in teaching, or in public-school administration, or equivalent educational experience approved by the commissioner of education.

The superintendent of city schools in the State of New York shall possess, subject to the by-laws of the board of education, the following powers and be charged with the following duties:

1. To enforce all provisions of law and all rules and regulations relating to the management of the schools and other educational, social, and recreational activities under the direction of the board of education, to be the chief executive officer of such board and educational system, and to have a seat in the board of education and the right to speak in all matters before the board, but not to vote.

2. To prepare the content of each course of study authorized by the board of education.

3. To recommend suitable lists of textbooks to be used in the schools.

4. To have supervision and direction of associate, district, and other superintendents, directors, supervisors, principals, teachers, lecturers, medical inspectors, nurses, auditors, attendance officers, janitors, and other persons employed in the management of the schools or the other educational activities of the city, under the direction and management of the board of education, to transfer teachers from one school, or from one grade of the course of study to another grade, and to report immediately such transfers to the board for its consideration and action; to report to the board of education violations of regulations and cases of insubordination, and to suspend any employee until the next regular meeting of the board, when all the facts relating to the case shall be submitted to the board for its consideration and action.

5. To have supervision and direction over the enforcement and observance of courses of study, the examination and promotion of pupils, and over all other matters pertaining to playgrounds, medical inspection, recreation, and social center work, libraries, lectures, and all other educational activities and interests under the management, direction, and control of the board of education.

6. To issue such licenses to teachers, principals, directors, and other members of the teaching and supervisory staff as may be required by the board of edu-

cation in cities in which the board requires its teachers to hold qualifications in addition to or in advance of the minimum qualifications prescribed by law.

Whether or not the powers and duties of city superintendents should be definitely defined by general State law is still a question. The school law should, however, define the more important duties of the superintendent, as does the general education law of the State of New York.

In those States where the school law does not define the powers and duties of the city superintendent of schools, school boards have within the past few years accorded him many of the prerogatives that belong to an executive officer. They have made the office a more dignified one, calling for men with executive as well as with teaching ability.

For this reason a new type of superintendent is coming to the front. Instead of the mere pedagogue, out of touch with the world, there is the practical, scientific administrator who is able to show what the schools are accomplishing. He can show the public how the school funds have been expended. He has developed school accounting so as to indicate with definiteness the purpose for which all money is spent in terms of the particular service secured, and also with respect to the particular division, school, or subject taught. Not until within the past few years did school boards, or, indeed, any individual in the smaller cities, know how school funds were expended. Money was appropriated on a "hit-or-miss" plan. The high-school expenses might be costing four or five times as much per pupil as the elementary grades. The cost of heating 1,000 cubic feet in one building might be several times as much as for another building. Latin might be costing 25 cents per pupil recitation and other subjects only 5 or 6 cents. No one knew. There was no attempt made to find out where every cent of the funds went. There was no attempt at detailed budget making. Now all progressive school boards and superintendents can trace every dollar from the time it leaves the taxpayer until it is expended for the object intended. It is true that in the smaller cities the number of such boards having this information is not large; but it is becoming larger each year.

The new type of superintendent has also learned to show more definitely what children have achieved. He is using more exact measurements, especially for the formal subjects. His annual reports have been much improved, being no longer abstract treatises or a mass of uninterpreted facts. The frankness with which many of the superintendents in the smaller cities set forth conditions is an indication for the better that has come about in the administration of the small city school. For instance, the whole situation regarding the progress of pupils through the grades, the school attendance, and achievement of pupils measured by well-known standards are presented, and recommendations made on the basis of fact.

THE SURVEY IN SCHOOL ADMINISTRATION.

In this connection mention should be made of the improvement of school administration in the small city through the influence of the school survey. Though the immediate results where surveys have been made have not always been all that could be desired, they have, on the whole, been helpful to school administrators. They have at least shown a method of attacking educational problems and they have aroused greater interest in school administration, especially in the approach from the fact side.

Among the small city schools that have been surveyed during the past two years are Brookline, Mass., Elyria, Ohio, Janesville, Wis., Winston-Salem, N. C., and all the cities of Arizona and South Dakota in connection with State-wide surveys.[1]

Besides the general surveys, there have been surveys of specific phases of school work. At Fort Dodge, Iowa, a survey was made to discover the chief reasons why so many boys leave the schools of the city before completing the course; in what grades the greatest number of boys drop out; what they do after leaving school; what their earning capacity is; and what readjustments should be made in the courses of study to make them meet the needs of the boys of the community.

At Virginia, Minn., a study was undertaken to determine what is required of boys and girls who seek employment after leaving school. The survey covered not only the trades, such as machinists, plumbers, etc., but all work which requires the employment of men and women, boys and girls. The information for the survey was collected from three sources: (1) Industrial surveys made in various parts of the country; (2) reports and expenses of institutions, both private and public, working along the lines of industrial education; and (3) a survey of the local industries.

As a result of the survey the school board adopted the plan of giving students in the junior high school general work in the various departments of vocational training, work which would be practically the same as that offered under the head of manual training. During this period every effort is to be made to assist the students who are following vocational work to decide which of the courses offered they are best fitted to follow. The senior high school is to be used as the time to specialize in this course or trade, so that at the end of the high-school course the graduate will have had four years of work in the trade which he has selected to follow. It is not the expectation of the school board in adopting this plan that after four years of work in the senior high school the graduate will be a finished

[1] For a discussion of the reports of these surveys, see the chapter on educational surveys, reprinted as Bulletin, 1918, No. 45.

tradesman but that he will simply have made a very good start toward the mastery of his trade.

The survey committee recommended: That the work in the industrial department, both for boys and girls, be made practical; that it be suited to the needs of the industries in the community; that a certain amount of commercial work be brought into the shops; and that experienced men be employed from the industries to teach shopwork. The committee was of the opinion that, while the greater part of the instructors should be experienced workers, it must not lose sight of the fact that teaching others is a profession, and that a few trained teachers should be employed to systematize at least the elementary work of the student and give him a well-rounded education.

The survey, according to the report of the committee, developed the fact very clearly that something has been lacking in the school system. The employers of labor, upon first approach, were skeptical about what the school could do to better conditions in the industries and to train boys to take their places in the industries. They seemed to question the possibility that work of this practical character could be introduced into the schools, but after the committee explained that experienced workers would be employed as instructors and that the employers would be called upon to visit, criticize the work, and give suggestions, they all agreed that the committee was upon the right track, and that this matter should have been considered and put into effect long ago. The fact was also brought out that the students in the community lacked the quality of stick-to-it-ive-ness, and that they overestimated the value and ability of themselves. The employers suggested that it was high time that the school and the community cooperate in bringing about a better spirit toward the work. The survey committee continued its report by making recommendations regarding the work to be done in the schools in respect to the industries of the community.

As a result of the surveys made by persons not connected with the schools surveyed, more superintendents are surveying their own schools. If the outside survey has accomplished nothing more than to cause school men to study their own schools, it has been worth while. Whether surveys by persons outside the school system will continue is a question. One thing is certain—there will be more self-surveys. Superintendents surveying their own schools may call in some one as consulting specialist to help them interpret the facts.

The better type of school report that some superintendents are preparing is evidence that they are analyzing conditions more carefully than before, and that in effect they are surveying their own

schools. There is no reason why a superintendent can not make an exhaustive study of his school system, especially if he has had college courses in school administration and management. He is on the ground all the time and should know conditions better than any one else. The statistical data that the surveyor collects often after much labor should be in the superintendent's office at all times. It should not be necessary for an outside surveyor to spend a week or more collecting data regarding school attendance, progress of pupils through the grades, education and experience of teachers, etc. These should be on file. A superintendent can measure the achievement of pupils by means of standard tests as well as any one else. He has access to the scores made by pupils in other cities and can easily make comparisons and draw conclusions. In the matter of finance he can show unit costs and make interesting comparisons just as effectively as can any one brought in from outside the school system.

Among the late school reports that may be classed as instructive self-surveys are those of Southington, Conn.; Huron, S. Dak.; Globe, Ariz.; Anderson, Ind.; Bristol, Va.; Lawrence, Kans.; and Kane, Pa.

The 1916–17 report of the schools at Huron, S. Dak., discusses organization and administration, physical environment, teaching force, pupil accounting, quality of instruction, pupil achievement, schools costs. The report contains 35 statistical tables and 39 charts to illustrate relation of attendance to enrollment, preparation of teachers, grade distribution, etc.

The superintendent of schools at Lawrence, Kans., in his report for 1916–17, asks and answers 90 questions regarding the schools of that city. Among the questions asked and answered are:

In what proportion does Lawrence apportion school money among the several expense items?
What do these figures show?
What probable future demands will these several items make upon Lawrence?
What changes will this necessitate in the Lawrence budget?
How does the high cost of living affect the schools?
How many children failed of promotion?
How many children skipped a grade?
In what subjects do children make the most failures?
Is Lawrence peculiar in this respect?
What do we know of failures for all the children?
What is the retardation in each building?
Have we any basis of comparison in the matter?
What does the comparison show?
What has been done to improve the situation?

The report thus continues to answer questions that any searching investigator would ask, and which the school patron would wish to know.

SALARIES AND PROMOTIONS OF TEACHERS.

Until within the past two years the educational and professional standards for teachers had been raised slowly until most of the smaller cities required applicants for teaching positions to be high-school graduates with an additional year or two of professional training, or in lieu of such training a year or two of successful experience. In not a few cities the standard has been difficult to maintain, owing to the fact that many teachers have recently left the profession to accept more lucrative positions with the National Government or with private corporations. In many of the schools in smaller cities it is not unusual for a teacher to receive a salary of less than $600 a year. Since positions elsewhere, paying $1,000 or $1,200 a year, were easily obtained, the teaching corps in many of the smaller cities has been almost depleted of its experienced teachers. As a result those less experienced and less well prepared have to be employed. Many married women who taught school 10 or 15 years ago have returned to the classroom. The plan of employing married women who have taught school is to be preferred to that of employing girls just out of high school, from the fact that the married women, though they may not have completed a high or normal school course, have a broader view of life and know children much more intimately. In order that those who formerly taught and who are again taking up teaching may know something of recent developments in educational methods, a superintendent should hold numerous conferences to assist these teachers in gaining the newer point of view in educational methods. As many as possible should be induced to attend summer schools for teachers.

If school boards had increased salaries in proportion to the increase in living expense, there would in all probability not now be such a shortage of teachers. Some, however, would have left the profession, thinking that they could render better service for their country in other lines of work.

In order to keep the schools running some school boards have given teachers bonuses of from $50 to $100 a year. Others have granted salary increases ranging from 5 to 35 per cent, the usual increase being only 10 per cent. Salaries in other professions or occupations have increased much more. Although the cost of living has more than trebled, teachers' salaries have remained almost stationary. The schools in many of the smaller cities can not help but suffer because teachers resign to accept more lucrative positions. Resignations of teachers were all too common before the war, few teachers remaining in a city more than five years. Conditions have been going from bad to worse. There is but one way to check this general movement away from the profession—salaries commensurate with the preparation re-

quired and with the exacting demands made upon a teacher's time must be paid. The increase in salary should be at least 40 per cent over the salary paid two years ago. Increases of 5 and 10 per cent have little or no effect in holding teachers who have been offered positions at twice their present salary.

In determining a salary schedule the following principles should be recognized:

1. The teacher at the very least should receive a living wage. This should include enough to allow her to improve herself professionally and to save something each year in anticipation of the time when she must retire from active schoolroom service.

2. The maximum salary should be sufficient to retain the service of the most desirable teachers.

3. In the administration of a salary schedule, superior work should be recognized.

In many of the school systems where merit is a factor in the promotion of teachers, superintendents have devised various plans for grading teachers. Of 780 superintendents reporting, 115 have formulated schemes for grading teachers. Whether such rating plans can be carried out successfully is a question, especially if the rating scheme is a detailed one. If a teacher is to be promoted upon merit, she should know what standards the superintendent has in mind, so that she may attempt to attain them. It is not possible to give examples of all the many standards in use, but a few are presented to show what superintendents and others are attempting to do to develop subjective standards for the testing of teachers. In some of the schemes which enumerate qualities or elements of good instruction the idea is that the qualities enumerated may serve as a basis for self-criticism and self-improvement on the part of the teacher. For instance, the superintendent of schools at Kalispell, Mont., who has prepared a teacher-rating plan, wisely says:

> With these standards as a suggestion, teachers need not wait to have weaknesses pointed out to them. Let no one understand that instruction and teaching ability will be judged solely or chiefly on the basis of the factors enumerated. The best part of the teaching process is what has been called "unconscious tuition." The habits the teacher is instilling, the taste she is cultivating, and the appeals she is making to the feeling and the volition of the child are more important than any of these elements. We are more concerned with what the children do than with what the child knows.

The following test is to be used by the teachers themselves to see that they are not overlooking some of the elements of success:

I. *Results.*
- (*a*) Development of pupils.
- (*b*) Growth in subject matter.
- (*c*) Attention.
- (*d*) Responsiveness of class.

II. *Technique in teaching.*
- (*a*) Organization of subject matter.
- (*b*) Choice of subject matter.
- (*c*) Skill in teaching how to study.

II. *Technique in teaching*—Contd.
- (*d*) Skill in stimulating thought.
- (*e*) Definiteness and clearness of aim.
- (*f*) Skill and care in assignment.

III. *School management.*
- (*a*) General care of room, blackboards, window shades, waste baskets, floors, etc.
- (*b*) Ventilation.
- (*c*) Care of wraps and wardrobes.
- (*d*) Care of books and supplies.
- (*e*) Care of desks (teacher's and pupils').

IV. *Professional equipment.*
- (*a*) Understanding children.
- (*b*) Use of English.
- (*c*) Interest in the work.
- (*d*) Manner of reacting on suggestions.
- (*e*) Manner of receiving criticisms.

IV. *Professional equipment*—Contd.
- (*f*) Loyalty to other teachers and school authorities.
- (*g*) Manner of keeping records.
- (*h*) Times tardy during the year.
- (*i*) Days absent during the year.

V. *Personal equipment.*
- (*a*) Health.
- (*b*) Voice.
- (*c*) Tact.
- (*d*) Sympathy.
- (*e*) Evenness of temper.
- (*f*) Dignity.
- (*g*) Personal neatness (dress, etc.).
- (*h*) Cheerfulness.
- (*i*) Orderliness.
- (*j*) Winsomeness: appeal to children.
- (*k*) Posture.

To receive promotion in the Kalispell schools beyond $960 a year a teacher must show marked success. All advancement in salary is upon the recommendation of the superintendent, confirmed by the board of education, which recommendation is conditional on ability to teach, professional spirit, attitude toward the school and the children, spirit of growth, and desire to excel.

At Marblehead, Mass., the teachers are classified by the supervisors and superintendent into five groups, on the basis of the quality of service they have rendered: 1. Those whose work is of so poor a quality that they should be dismissed from the service. 2. New teachers whose work has been unsatisfactory, but who show sufficient promise of growth and improvement to justify further trial. 3. Those who show litle, if any, improvement over the work of previous years. 4. Those who are strong teachers and do uniformly good work; who measure up well in all departments and show improvement from year to year. 5. Exceptional teachers whose work is superior; who possess unusual skill in teaching and show a large measure of initiative, resourcefulness, and power in stimulating pupils to achieve the most worth-while of the results that the school seeks to accomplish.

The school board of Ann Arbor, Mich., has prepared a salary schedule to supplement the regular one. After attaining the maximum salary allowed by the schedule, each teacher's salary is to be final for triennial periods. An increase of $100 above the maximum may be received the second triennial period by meeting, during the first period, the requirements of any one of the following plans:

PLAN I.

(*a*) Attendance on at least one annual session of some national educational organization meeting outside of Michigan.

(*b*) Attendance on at least one annual session of the Michigan State Teachers' Association meeting outside of Ann Arbor.

(*c*) Subscription for and reading of two educational periodicals, one of which shall not be devoted especially to the subject or grade taught by the teacher.

(*d*) Making reports on the meetings attended and the periodicals read as may be required by the executive committee and the superintendent of schools.

PLAN II.

(*a*) Gaining eight hours' credit for regular work in any university, college, or normal school, half of which shall not be in subjects or grades regularly taught by the teacher.

(*b*) Subscription for and reading of two educational periodicals, one of which shall not be devoted especially to the subject or grade taught by the teacher, and making reports thereon.

PLAN III.

(*a*) Spending two months in foreign travel and reporting as may be required by the executive committee and the superintendent of schools.

(*b*) Subscription for and reading of two educational periodicals, one of which shall not be devoted especially to the subject or grade taught by the teacher, and making reports thereon.

PLAN IV.

(*a*) Maintaining during the period a definite line of study that, in the judgment of the executive committee and the superintendent of schools, is equivalent to eight hours of university, college, or normal school work.

(*b*) Subscription for and reading of two educational periodicals, one of which shall not be devoted especially to the subject or grade taught by the teacher, and making reports thereon.

Any teacher who has gained the first increase of $100 may for the ensuing period gain an increase of $100 more by meeting the requirements of one of the foregoing plans other than the one by which the first increase was gained; but only two such increases shall be possible.

Failure to meet the requirements of some one of these plans during a triennial period will cause the loss of $100 per year in salary if an increase has already been gained.

Each applicant for increase beyond the maximum of the schedule must notify the superintendent of schools in writing, at the beginning of the school year, of the intention to seek an increase and state which of the plans has been chosen.

In the inauguration of this plan, any teacher who has taught three years or more at the maximum salary and has, during the past three years, met the requirements of any one of these plans, except as to reports, may receive the first increase during the current year, and any teacher who has taught two years or more may receive the first increase for the year after that in which the requirements of any one of the preceding plans have been met.

The following efficiency record, prepared by the department of education of the University of Chicago, is in use in some of the schools reporting the use of subjective standards:

EFFICIENCY RECORD.

DETAILED RATING		V.P.	Poor.	Medium.			Good.	Ex.
I. *Personal equipment*—	1. General appearance							
	2. Health							
	3. Voice							
	4. Intellectual capacity							
	5. Initiative and self-reliance							
	6. Adaptability and resourcefulness							
	7. Accuracy							
	8. Industry							
	9. Enthusiasm and optimism							
	10. Integrity and sincerity							
	11. Self-control							
	12. Promptness							
	13. Tact							
	14. Sense of justice							
II. *Social and professional equipment*—	15. Academic preparation							
	16. Professional preparation							
	17. Grasp of subject matter							
	18. Understanding of children							
	19. Interest in the life of the school							
	20. Interest in the life of the community							
	21. Ability to meet and interest patrons							
	22. Interest in lives of pupils							
	23. Cooperation and loyalty							
	24. Professional interest and growth							
	25. Daily preparation							
	26. Use of English							
III. *School management*—	27. Care of light, heat, and ventilation							
	28. Neatness of room							
	29. Care of routine							
	30. Discipline (governing skill)							
IV. *Technique of teaching*—	31. Definiteness and clearness of aim							
	32. Skill in habit formation							
	33. Skill in stimulating thought							
	34. Skill in teaching how to study							
	35. Skill in questioning							
	36. Choice of subject matter							
	37. Organization of subject matter							
	38. Skill and care in assignment							
	39. Skill in motivating work							
	40. Attention to individual needs							
V. *Results*—	41. Attention and response of the class							
	42. Growth of pupils in subject matter							
	43. General development of pupils							
	44. Stimulation of community							
	45. Moral influence							
GENERAL RATING								

Recorded by..... Position..... Date.....

EXPLANATION OF TERMS.

I. *Personal equipment* includes physical, mental, and moral qualities.

1. *General appearance*—physique, carriage, dress, and personal neatness.
3. *Voice*—pitch, quality, clearness of schoolroom voice.
4. *Intellectual capacity*—native mental ability.
5. *Initiative and self-reliance*—independence in originating and carrying out ideas.
7. *Accuracy*—in statements, records, reports, and school work.
10. *Integrity and sincerity*—soundness of moral principles and genuineness of character.
13. *Tact*—adroitness, address, quick appreciation of the proper thing to do or say.
14. *Sense of justice*—fair-mindedness, ability to give all a "square deal."

II. *Social and professional equipment* includes qualities making the teacher better able to deal with social situations and particularly the school situation.

15. *Academic preparation*—school work other than professional. Adequacy for present work.
16. *Professional preparation*—specific training for teaching. Adequacy for present work.
17. *Grasp of subject matter*—command of the information to be taught or the skill to be developed.
18. *Understanding of children*—insight into child nature; sympathetic, scientific, and practical.
22. *Interest in lives of pupils*—desire to know and help pupils personally, outside of school subjects.
23. *Cooperation and loyalty*—attitude toward colleagues and superior officers.
24. *Professional interest and growth*—effort to keep up to date and improve.
26. *Use of English*—vocabulary, grammar, ease of expression.

III. *School management* includes mechanical and routine factors.

29. *Care of routine*—saving time and energy by reducing frequently recurring details to mechanical organization.
30. *Discipline (governing skill)*—character of order maintained and skill shown in maintaining it.

IV. *Technique of teaching* includes skill in actual teaching and in the conduct of the recitation.

31. *Definiteness and clearness of aim*—of each lesson and of the work as a whole.
32. *Skill in habit formation*—skill in establishing specific, automatic responses quickly and permanently; drill.
33. *Skill in stimulating thought*—giving opportunity for and direction in reflective thinking.
34. *Skill in teaching how to study*—establishing economical and efficient habits of study.
35. *Skill in questioning*—character and distribution of questions; replies elicited.
36. *Choice of subject matter*—skill with which the teacher selects the material of instruction to suit the interests, abilities, and needs of the class.
37. *Organization of subject matter*—the lesson plan and the system in which the subject matter is presented.
39. *Skill in motivating work*—arousing interest and giving pupils proper incentives for work.
40. *Attention to individual needs*—teacher's care for individual differences, peculiarities, and difficulties.

V. *Results* include evidence of the success of the above conditions and skill.

41. *Attention and response of the class*—extent to which all of the class are interested in the essential part of the lesson and respond to the demands made on them.
42. *Growth of pupils in subject matter*—shown by pupils' ability to do work of advanced class and to meet more successfully whatever tests are made of their school work.
43. *General development of pupils*—increase in pupils' ability and power along lines other than those of subject matter.
44. *Stimulation of community*—effect on life of the community, tending to improve or stimulate its various activities.
45. *Moral influence*—extent to which the teacher raises the moral tone of the pupils or of the school.

Since school superintendents in the State of Indiana are required by law to issue over their own signature and deliver to the teachers under their supervision each year a statement of the success of each teacher, and such success grade shall be the teacher's legal success grade from one year from date of issuance, superintendents in that State use the rating system provided by the State law or a modifica-

tion of it. The following schedule of success items is in use at Elkhart:

SCHEDULE OF SUCCESS ITEMS.

I. Teaching Ability ---------- 55% _____
  A. Professional attainment ---------- (20%)
    1. Scholastic preparation.
    2. Professional training.
  B. The recitation ---------- (15%)
    1. Preparation of teacher and pupils.
    2. Appropriateness of subject matter.
    3. Definiteness of aim and purpose.
    4. Skill in questioning.
    5. Progression in plan.
    6. Care in assignments of lessons.
    7. Balancing of lines of work.
  C. Results in scholarship of pupils ---------- (20%)
    1. Acquisition of facts and relations.
    2. Accuracy.
    3. General information.
    4. Awakening of scholarly interests.
    5. Clearness and elegance of expression.

II. Governing and Disciplinary Ability ---------- 30% _____
  A. Moral and social influence on pupils and community ---------- (10%)
    Ability to develop in the pupils the altruistic virtues—recognition of law and social rights.
  B. Ability to develop egoistic virtues—industry, honesty, reliability, fidelity, etc ---------- (10%)
  C. Personality and appearance of teacher ---------- (10%)
    Personal and moral worth and influence, habits, disposition, health, attire, sympathy, energy, manliness or womanliness, honesty, etc.

III. Professional and Community Interest ---------- 15% _____
  A. Cooperation with other teachers and with with supervisors ---------- (5%)
  B. Interest in aims and plans of school community ---------- (5%)
    1. Care of school property—
      a. Protection of supplies and furniture.
      b. Neatness.
      c. School decoration.
    2. Building up of strong school sentiment in the community.
    3. Educational, literary, or social club work.
  C. Professional pursuits ---------- (5%)
    1. Present lines of professional study.
    2. Reading of educational literature.
    3. Attendance upon summer schools, institutes, and associations.

Total ---------- ____ ----% _____

The following is a schedule of success items provided by the superintendent of public instruction of Indiana according to the school law of that State:

	Per cent.
A. Teaching power	45
Many items enter into this, but the principal ones are training of teacher, preparation of lessons, skill in presentation, results obtained.	
B. Government	35
The teacher's power in government is shown in the general spirit of the school and in the attitude of the pupils toward their daily tasks, toward each other, and toward school property.	
C. General characteristics	20
Under this head the personality of the teacher, his community interests, and all those qualities that make for the best citizenship are considered.	

Salary schedules prepared by teachers.—Some superintendents, in conjunction with their teachers, have prepared salary schedules based upon merit. Such a schedule was prepared by a committee of teachers and the superintendent of schools of Columbus, Miss. Teachers are divided into the following classes:

Class A—Superior. A teacher whose work is exceptional. A teacher possessing unusual skill, resourcefulness, and power to stimulate pupils to achieve the best results the school seeks to accomplish.

Class B—Good. A teacher whose work is satisfactory and improving from year to year. A strong teacher.

Class C—Fair. A teacher showing little improvement from year to year. A teacher who has practically ceased to grow and whose service is doubtful, whose work is uneven and inconsistent. Work strong in some things and weak in others.

Class D—Unsatisfactory. A new teacher whose work is unsatisfactory but who gives promise of improvement and growth.

Class E—Inexperienced. A teacher who is entering the profession, or one whose experience is insignificant and unworthy of recognition.

Class F—Poor. A teacher whose service is poor and should be dismissed.

All teachers are classified by their principal in the following items:

1. *Personal qualifications.*—Health, voice, appearance, enthusiasm, etc.
2. *Professional ability.*—Knowledge of subject matter, knowledge of children, daily preparation, etc.
3. *School management.*—Discipline, system, attention to routine, etc.
4. *Teaching skill.*—School spirit of pupils and teacher, skill in conducting recitation, character of work of pupil, etc.
5. *Results.*—Knowledge gained, power to use knowledge, etc.

The school board of Evanston, Ill., made a decided departure from the usual method of formulating salary schedules when it suggested to the teachers that they appoint a committee of their own number to discuss, formulate, and recommend changes which, in their opinion should be made in the salary schedule of the teachers of that

city. Acting on this suggestion the teachers in each building and the principals as a group selected one of their number to represent them on the committee. This resulted in a committee of nine, which held a number of conferences to discuss the various phases of the salary schedule. After every conference the arguments presented and the conclusions reached were reported by each member to the teachers they represented. The school board after making a few minor changes adopted the recommendations of the committee of teachers.

The committee recommended that a salary schedule should be based upon the following principles:

1. The salary of a teacher at the very least should be enough to provide a living wage. It should enable a teacher to do the reading and pursue such studies as are necessary to keep her in touch with the progressive movements in education in this and other countries. In addition it should permit her to save something each year to provide for the time when she must of necessity retire from active schoolroom service.

2. The maximum salary should be sufficient to retain the services of the most desirable teachers, as well as to induce teachers of highest quality to seek positions in the Evanston schools. It is safe to say that this community demands and is willing to pay for the best possible instruction and training for its children.

3. The administration of a salary schedule should result in stimulating teachers in the service to develop to the highest degree whatever teaching power they possess. Superior work should be recognized and rewarded. Teachers should be classified according to the quality of service rendered and not alone on the basis of their years of service.

4. The basis for classifying teachers as to their teaching efficiency should be systematized, rationalized, and controlled. There should be something definite to show upon what the judgment is based; evidence should be available to support the final rating. The factors on which a teacher is judged should be carefully selected so as to include the really vital elements. The terms used should be so clearly defined that the teacher will not be in doubt as to what is expected of her. It is of the highest importance that the items listed be understood by those who use them. Confusion and misunderstanding are inevitable if the supervisor rating and the teacher rating have a different interpretation of their meaning. The rating schedule should enable a teacher to analyze her own work, to discover her own strength and weakness, and to find out how best to remedy the defects in her teaching.

5. Salary increases should be based on the quality of service rendered as shown by the rating of the teacher's efficiency. In teaching as in other lines a "wage should be a gauge"—more pay should mean larger or finer service. Mediocre service should not be rewarded by increase in salary, lest all service, including the best, shall suffer from withdrawal of efficiency rewards. Increases of salary should be conditioned upon demonstrated increased classroom efficiency.

In applying the basic principles which it announced the Evanston teachers' committee urged that the board of education adopt (*a*) a plan for rating teachers according to the quality of the service which they render; (*b*) that as a result of the rating, definite classifications be established, and that these determine the pay of individual

teachers; (*c*) that a specified salary rate be adopted; and (*d*) that a well-determined plan be adopted for the dismissal of the unfit.

The purpose of the rating plan, as outlined by the teachers, is—

1. To determine the quality of teaching, as a basis for selecting (*a*) those who are deserving of promotion with increased salaries; (*b*) those who are to be retained without salary increases; and (*c*) those who should not be retained in service.

2. To help teachers discover their own strength and weakness and to remedy existing defects in their work.

The following tentative basis for rating teachers was recommended:

TENTATIVE BASIS FOR RATING TEACHERS.

I. *Personal qualities:*
   1. General appearance.
   2. Health.
   3. Voice.
   4. Tact.
   5. Intellectual capacity.
   6. Reliability
   7. Initiative.
   8. Self-control.
   9. Enthusiasm.
   10. Sincerity.

II. *Social and professional ability:*
   1. Preparation, academic, and professional.
   2. Professional interest and growth.
   3. Grasp of subject matter and daily preparation.
   4. Use of English.
   5. Understanding of and interest in children.
   6. Relation to associates and school life.
   7. Relation to parents and community.

III. *School management:*
   1. Character of discipline.
   2. Guarding physical welfare of children.
   3. Schoolroom housekeeping.
   4. Attention to routine.

IV. *Teaching technique:*
   1. Factors affecting recitation:
      (*a*) Physical conditions.
      (*b*) Attitude of pupil to work.

IV. *Teaching technique*—Continued.
   1. Factors affecting recitation—Continued.
      (*c*) Attitude of pupil to teacher.
      (*d*) Attitude of teacher to pupil.
   2. Activities of the teacher:
      (*a*) Securing and retaining attention.
      (*b*) Selection and organization of subject matter.
      (*c*) Motivation.
      (*d*) Character of questions.
      (*e*) Character of illustrations.
      (*f*) Clearing up pupils' difficulties.
      (*g*) Attention to individual needs.
      (*h*) Capitalizing child's experience.
      (*i*) Stimulating initiative.
      (*j*) Courtesy to pupils.
   3. Activities of pupils:
      (*a*) Character of responses.
      (*b*) Organization of material—differentiating between essentials and nonessentials.
      (*c*) Independent thinking and self-reliance.
      (*d*) Cooperation with teachers and other pupils.

IV. *Teaching technique*—Continued.
3. Activities of pupils—Contd.
(*e*) Character and extent of questions by pupils.
(*f*) Character and extent of field work.
4. Assignment of lesson:
(*a*) Definiteness and clearness.
(*b*) Adequacy of preview.
(*c*) Presentation of values.
(*d*) Reasonableness and provision for exceptional pupils.

V. *Results:*
1. Gain in subject matter.

V. *Results*—Continued.
2. Power to use and apply knowledge gained.
3. Powers of initiative and persistence.
4. Powers of independent judgment and reason.
5. Attitude toward school.
6. Habit of testing results.
7. Skill in performance.
8. Development of character qualities.
9. Development of social mindedness.
10. Influence in community.

1. The scale of 1 to 10 is used for the sake of convenience to indicate the extent to which a quality exists. Such a marking is relative; it can not, of course, be considered an absolute measure. A mark of 10 in self-control, for example, does not mean 100 per cent or perfect self-control, but rather that the person so marked possesses self-control in an unusual degree, while a mark of 1, 2, or 3, would indicate the lack of it.

2. The qualities listed are not considered of equal value, neither does the scale show their relative value. It is obvious however, that some of these qualities should have vastly more consideration than others in determining the general rating of a teacher.

3. The general rating of a teacher therefore can not be found by adding up the numbers set opposite the different items. A teacher's general rating may be low, although she is marked very high in many of the items listed.

4. It is recognized that differing standards of excellence in the minds of different judges must result in differences in judgment. These standards so far as possible should be standardized and made objective. Standards can be established only through experience and long use of the scale, with such changes and modifications as are found to be needed.

5. In all cases it is a prime essential that a teacher shall be told and shown the basis for the rating in any particular, as well at the final general classification she is given.

All teachers at Evanston are to be clasified by the supervisors and finally by the superintendent into five groups, on the basis of the quality of service they have rendered. Five groups are suggested:

1. Those whose work is of so poor a quality that they should be dismissed from the service.

2. New teachers whose work has been unsatisfactory, but who show sufficient promise of growth and improvement to justify further trial. Frequently, it happens that a teacher who has done excellent work elsewhere finds it difficult within a year to adjust herself to new conditions, to new demands, and to standards which differ from those to which she has been accustomed.

3. Those who show little, if any, improvement over the work of previous years. The results obtained may be fairly satisfactory, but the fact that a teacher is reaching the point where she ceases to grow and improve, places her in the doubtful class. The work of a teacher in this group soon deteriorates and

her value is greatly reduced. Teachers whose work is uneven or not consistent—strong in some lines but weak in others which are essential, should be classified in this group.

4. Those who are strong teachers and do uniformly good work; who measure up well in all departments and show improvement from year to year.

5. Exceptional teachers whose work is superior; who possess unusual skill in teaching and show a large measure in initiative, resourcefulness and power in stimulating pupils to achieve the most worth while of the results the school seeks to accomplish.

It was recommended by the committee of teachers and adopted by the board of education that the minimum salary should be $75 and the maximum salary $1,500, and that increases should be granted as follows:

For teachers classified in—

(*a*) Group 1—no increase; teacher dismissed.
(*b*) Group 2—no increase; teacher retained for further trial.
(*c*) Group 3—$25 increase.
(*d*) Group 4—$50 increase.
(*e*) Group 5—$75 increase, or more, the merits of each case to be considered and decided individually.

The initial salary for any teacher is based on the character of the teacher's academic and professional equipment, the quantity and quality of her previous experience, and the salary she has been able to command in her former position.

DUPLICATE SCHOOLS.

Sufficient data are not at hand to say whether there is any general movement in the smaller cities to adopt duplicate schools. Several superintendents report that they are experimenting with such school with good results. The duplication school at Monessen, Pa., may be given as an example of the possibilities of such schools. One of the eight-room buildings in that city has been converted into a duplicate school. To the original building of eight rooms there were added a gymnasium, auditorium, domestic science, manual training, art, music, nature study, and application rooms, and a community room and library.

The use of the eight regular classrooms and the eight special rooms during every part of the school day gives the pupil the advantages of special activities and special teachers without the disadvantages of extra room occupied only part of the time.

All the drawing is taught by one teacher in the art room, which is arranged especially for the work. All the music is taught by a special teacher in the music room. A teacher is in the gymnasium the entire school day, and the different classes go to the gymnasium for their physical exercises. While the boys of two classes are in the manual-training room, the girls of the same two classes are in

the domestic-science room. The teacher in the library or reading room teaches the supplementary reading to the first, second, and third grades, and all the reading to the fourth, fifth, and sixth grades. The basal reading in the primary grades is taught in the regular classrooms. Spelling, writing, English grammar, arithmetic, history, and geography are taught by regular teachers in the classrooms. Under the direction of the teacher of expression the pupils are taught story-telling, dramatization of stories, and other oral English work. Hygiene and sanitation and nature study are taught by a special teacher in the nature study and application room. This puts number work into practice by playing store, for which sets of measures and weights, toy money, and different packages of goods have been supplied. There are no pupils beyond the sixth grade in the duplicate school. The following program explains the operation of the school:

PROPOSED PROGRAM FOR THE IOWA BUILDING.

September, 1917.

	8.50–9.40	9.40–10.20	10.20–11.00	11.00–11.45
IB1.	Exp., M. W. F. Nat. S. App., Tu. Th.	Handwork.	Classroom.	
IB2.	Classroom.		Exp., M. W. F. Nat. S. App., Tu. Th.	Handwork.
IA1.	Exp., Tu. Th. Nat. S. App., M. W. F.	Handwork.	Classroom.	
IA2.	Classroom.		Exp., Tu. Th. Nat. S. App., M. W. F.	Handwork.
IIB.	Handwork.	Exp., M. W. F. Nat. S. App., Tu. Th.	Classroom.	
IIB. IIA.	Classroom.		Handwork.	Exp., M. W. F. Nat. S. App., Tu. Th.
IIA.	Handwork.	Exp., Tu. Th. Nat. S. App., M. W. F.	Classroom.	
IIIB.	Classroom.		Handwork.	Exp., Tu. Th. Nat. S. App., M. W. F.
IIIB. IIIA.	Art, Tu. Th. Phy. Ed., M. W. F.	Music, M. W. F. Lib., Tu. Th.	Classroom.	
IIIA.	Classroom.		Art, Tu. Th. Phys. Ed., M. W. F.	Music, M. W. F. Lib., Tu. Th.
IVB.	Art, M. W. F. Phys. Ed., Tu. Th.	Music, Tu. Th. Lib., M. W. F.	Classroom.	
IVA.	Classroom.		Art, M. W. F. Phys. Ed., Tu. Th.	Music, Tu. Th. Lib., M. W. F.
VB.	Music, M. W. F. Lib., Tu. Th.	Art, Tu. Th. Phys. Ed., M. W. F.	Classroom.	
VA.	Classroom.		Music, M. W. F. Lib., Tu. Th.	Art, Tu. Th. Phys. Ed., M. W. F.
VIB.	Music, Tu. Th. Lib., M. W. F.	Art, M. W. F. Phys. Ed., Tu. Th.	Classroom.	
VIB.	Classroom.		Music, Tu. Th. Lib., M. W. F.	Art, M. W. F. Phys. Ed., Tu. Th.

Noon intermission, 11.45–1.15. Boys may take art while girls are taking physical education. Girls may take art while boys are taking physical education.

PROPOSED PROGRAM FOR THE IOWA BUILDING—Continued.

	1.15–1.55	1.55–2.35	2.35–3.15	3.15–3.55
1B1.	Art, Tu. Th. Phys. Ed., M. W. F.	Music, M. W. F. Lib., Tu. Th.	Classroom.	
1B2.	Classroom.		Art, Tu. Th. Phys. Ed., M. W. F.	Music, M. W. F. Lib., Tu. Th.
1A1.	Art, M. W. F. Phys. Ed., Tu. Th.	Music, Tu. Th. Lib., M. W. F.	Classroom.	
1A2.	Classroom.		Art, M. W. F. Phys. Ed., Tu. Th.	Music, Tu. Th. Lib., M. W. F.
IIB.	Music, M. W. F. Lib., Tu. Th.	Art, Tu. Th. Phys. Ed., M. W. F.	Classroom.	
IIB. IIA.	Classroom.		Music, M. W. F. Lib., Tu. Th.	Art, Tu. Th. Phys. Ed., M. W. F.
IIA.	Music, Tu. Th. Lib., M. W. F.	Art, M. W. F. Phys. Ed., Tu. Th.	Classroom.	
IIIB.	Classroom.		Music, Tu. Th. Lib., M. W. F.	Art, M. W. F. Phys. Ed., Tu. Th.
IIIB. IIIA.	Exp., M. W. F. Nat. S. App., Tu. Th.	Handwork.	Classroom.	
IIIA.	Classroom.		Exp., M. W. F. Nat. S. App., Tu. Th.	Handwork.
IVB.	Exp., Tu. Th. Nat. S. App., M. W. F.	Handwork.	Classroom.	
IVA.	Classroom.		Exp., Tu. Th. Nat. S. App., M. W. F.	Handwork.
VB.	Handwork.	Exp., M. W. F. Nat. S. App., Tu. Th.	Classroom.	
VA.	Classroom.		Handwork.	Exp., M. W. F. Nat. S. App., Tu. Th.
VIB.	Handwork.	Exp., Tu. Th. Nat. S. App., M. W. F.	Classroom.	
VIB.	Classroom.		Handwork.	Exp., Tu. Th. Nat. S. App., M. W. F.

In grade 5, for example, the 5A pupils are in the regular classroom from 8.50 to 10.20, and during the period from 10.20 to 11.45 they are in one or more of the special rooms. During the period 8.50 to 10.20 the 5B pupils are in one or more of the special rooms, and during the period 10.20 to 11.45 they are in the regular classroom.

The superintendent of schools at Monessen summarizes the advantage of the duplicate school as follows:

It furnishes special teachers for special subjects, like music, drawing, physical culture, domestic science, and manual training.

It provides these special activities at a less cost by having all rooms occupied at all times.

It provides library and reading facilities that we can not have in another school.

It provides better for the exercise of the pupils' natural activities.

In the application room and the handwork rooms the pupil has an opportunity to put into practice his arithmetic, and in the expression room or story-telling and dramatizing room he has an opportunity for practical oral English.

Our experience so far shows that the children prefer to go to this school.

SUPERVISED STUDY.

A few years ago the attention of teachers was called to the fact that many children fail because they do not know how to study. Not a few superintendents have, within the past few years, rearranged the daily program in both the elementary and the high school so that teachers may have an opportunity to supervise the study of pupils. Supervised study may no longer be considered an experiment. The interest in it has become such that several books and numerous magazine articles have been written on the subject. Teachers' associations and institutes have taken it up as one of the vital problems in school management.

The purpose of supervised study is to shift the emphasis from the recitation period to the study period and to give more attention to methods of study and less attention to testing the pupils to find out how much they remember of the text. A recitation of 10 minutes after 30 minutes of supervised study is no doubt better than a recitation of 30 minutes after 10 minutes of study, the amount of time some pupils give to the studying of a lesson. Since good habits of study are more desirable than the mere accumulation of facts, one of the important functions of the teacher is to teach children how to study.

The results of supervised study have been reported as good. The superintendent of schools at Foxcroft, Me., who made trial of this method in the elementary grades, reports:

Many of the supposedly dull pupils manifested unusual ability after a short time, due to the confidence caused by class discussion and better methods of study. Nonpromotions were diminished, and a better standard of work was obtained in both divisions. The dull pupils were not outstripped in coming to conclusions by the bright ones; neither did the quicker pupils have to wait for explanations that were needless to them. At the end of the year the class came nearer to being all on the same level than they could possibly have been with all pupils in the same group.

The superintendent of schools at Madison, Ind., who has introduced supervised study into his schools, has distributed to the pupils the following suggestions as to methods of study which should prove helpful, especially if the teacher encourages and assists her pupils to follow the suggestions:

SUGGESTIONS.

1. Make out a regular study program at the beginning of the term for both school and home study. A regular study program saves time, prevents idleness, presents a definite task for each period of the day, assures preparation of each lesson, shows the necessity for home study, and tends to create habits of regularity along all lines.

2. If possible arrange to study a subject immediately following the recitation in the subject.

3. Follow your study program regularly every day. Never make an exception to this rule.

4. Begin to work at the beginning of the period. Do not waste time.

5. Provide yourself with the material the study of the lesson requires at the beginning of the study period.

6. Begin by reviewing the chief points in the last recitation in the subject to be studied.

7. Study the assignment. Be sure you understand it and know what you are expected to do.

8. Concentrate on the work to be done. Do not let other things attract your attention. When you study make a serious business of it. Do not dilly dally.

9. Read the lesson through as a whole and get the general idea.

10. Study each paragraph, topic, or problem in detail. Understand it before going to the next.

11. Make use of the dictionary, reference books, maps, and all aids available.

12. Stop frequently and think over what you have read. Relate the new ideas to old ideas of a like nature.

13. Make a brief written outline of the chief points. Close the book and think through the lesson following the outline.

14. Review often. Memorize important data.

THE WAR AND THE SMALL-CITY SCHOOLS.

Schools in the smaller cities have been influenced by the war in practically the same way as those in the larger cities. The former as a result of the war have in some respects suffered more and in other respects they have made more advancement relatively than the latter. In the small city there has been a greater shortage of teachers, owing to the fact that salaries in most of these cities are much less than in the larger cities. The selective draft called more men from the schools of the small cities than from the large, since most of the male teachers in these schools are within the draft age. In some respects the small-city schools have made more progress relatively than the large-city schools. Prior to the war not a few of the former confined their attention chiefly to the academic subjects. Now most

of them have introduced industrial, home economic, and commercial courses. Many have organized night schools for adults and especially for the foreign-born adult.

The war has modified the course of study by relating it more intimately to actual conditions. Schoolmen realized that the teaching of the war should not be deferred until after the historian has arranged the events in chronological order and has sifted and interpreted the facts. Practically every school in the smaller cities has been teaching the causes of the war. Many schools have followed the movements of the armies from day to day by means of bulletin boards. Discussions in connection with lessons in history, geography, English composition, and literature have been common. Incidental instruction regarding the war can and should be provided through the opportunities offered by the regular school subjects. It has been found that a good time to impress the causes and events of the war upon the minds of the children is when Liberty Loans are being floated and when subscriptions for the Red Cross are being solicited. However, if definite results are to be obtained, instruction regarding the war must be more than incidental, incidental instruction in school subjects having proved a failure. There must be systematic instruction, there must be some aim, and not the teaching of a few unrelated facts here and there, and now and then, in connection with the other school subjects.

Some schools have made a systematic study of the war by means of an outline prepared under the direction of the superintendent. Such an outline prepared by the superintendent and teachers at Fargo, N. Dak., may be given as an illustration of what it is possible for a school to do to make a systematic study of the war. The outline was prepared to suit the different grades. The outline for the sixth grade is given herewith:

OUTLINE OF WAR STUDY AT FARGO, N. DAK.

I. The Army.
   1. Regular.
   2. National Guard.
   3. National Army (first call).
II. The geography of the warring nations.
III. Social and political conditions among the warring nations.
   1. Suffrage.
   2. Condition of—
      (*a*) Poorer classes. Day laborers; wages.
      (*b*) Middle classes.
      (*c*) Upper classes.
   3. Class distinctions.
   4. Opportunities for the common people.
   5. Position of women.

III. Social and political conditions among the warring nations—Continued.
6. Government.
7. Compare with the United States.
8. Immigration to the United States. Why?

IV. Military organizations of—
1. Germany.
2. Austria.
3. Russia.
4. Italy.
5. France.
6. England.
7. United States.

V. The Hague Tribunal.
1. Its history.
2. Attempts at arbitration.
3. Attempts at disarmament.

VI. The Monroe Doctrine. Attitude of Germany toward it.

VII. The war.
Why we are in the war.
(*a*) Invasion of Belgium.
(*b*) Sinking of the *Lusitania;* President's message.
(*c*) Sinking of the *Sussex;* President's message.
(*d*) Submarine warfare.
(*e*) Making the world safe for democracy.

VIII. The naval battle of Heligoland, illustrating use of dreadnaughts, battle cruisers, torpedo-boat destroyers, torpedo boats, and submarines.

IX. Movement for peace.
1. The Hague Tribunal. The work of Carnegie.
2. Czar of Russia and his disarmament proposition.
3. Treaties made upon the advice of Mr. Bryan.

X. The Red Cross.
1. Its history.
2. Its purpose.
3. Tell the story of Florence Nightingale. Read the poem to her by Longfellow.

XI. Y. M. C. A. Its purpose in relation to the war.

XII. Conservation.
Elimination of waste:
(*a*) Clean plate and empty garbage can.
(*b*) Quit feeding useless pets.
(*c*) Getting full value for money.
(*d*) Government fixing prices.

XIII. Tell how the different countries finance the war.

The war has modified the method of teaching many of the school subjects. The teaching of English composition has been vitalized through the discussion of topics relating to the war. Compositions based upon some event of the war have taken the place of those on topics in which the pupil had no, or at least only a remote, interest. One of the most powerful means of vitalizing instruction in English has been the Junior Four Minute Men talks. New meaning has been given to history and geography by teaching about present-day hap-

penings and the work the world is now doing. In the manual training shop and in the home economics rooms a motive now prevails, while heretofore the pupils in many schools in the smaller cities did "exercises" in manual training and in cooking and sewing. Now they are making things in the manual training shop that have a real use. Sewing is for some purpose, making material for the Red Cross; cooking has been put on a more rational basis, the children being taught food values and food conservation. The art teacher has likewise vitalized her work. Instead of mere exercises, she has had her pupils make posters for Liberty Loan, War Saving Stamp, and Red Cross campaigns. There is scarcely a school subject that has not been made more alive by relating it to actual conditions. The principle that school work should be related to life has long been advocated and but little practiced. The war has been a means of relating school work to life.

Before the war the smaller city schools as a rule gave but little attention to home gardening under the direction of the schools. A few were, however, experimenting with this kind of school work. In almost a day practically every small city school system became interested in gardening under the direction of a supervisor. Many teachers have volunteered their services during the summer months. In some places the supervisors are employed by the school board. This is the better plan. In a very small city the principal of schools could well devote part of his time to the supervision of home gardening. In other cities the instructor of science or teachers especially interested in nature study should be employed for the entire year, so that during the summer months they may supervise the garden work.

Most of the small-city schools report that they have dropped German from the high-school course of study. In those schools in which German has been the only modern foreign language offered, French or Spanish has been substituted. Owing to our close relations with the French people and our interest in them, the teacher of the French language now has an opportunity to vitalize the subject which she has never had before. Many children will be interested in learning the language so that they may write letters in French to their brothers or friends now in France, and they will be interested in learning to speak the language so that they may converse in French with those returning from France. These motives, it is true, are not the real ones for studying the language, but they are so near that the teacher can not afford to neglect them.

Within the last few years physical training has received a powerful impulse. Of the schools reporting, practically all have taken steps toward the better care of the child's health. Some have intro-

duced military training, others have introduced systematic physical education. Many have employed a school physician or nurse, or both. Greater advancement has been made in the schools of the States of New York and New Jersey than elsewhere, owing to the fact that the State law in each of these States requires physical training as a part of the course of study. As good results may be expected in the other States that require physical training. In those States where no such law has been enacted the more progressive cities have made physical training a part of the school work. Since such training has been found to be necessary, the State should require it of every school and not leave its adoption to local initiative, because some cities never will have initiative enough to introduce a course in physical training. It is sound theory that the State should require every school to teach those subjects that are of most value to the individual and to the State and not leave the introduction of vitally important subjects to the whims of a local community. Every State requires that reading, writing, and arithmetic be taught, these being considered the "tools," and that it is necessary for every one to have a thorough mastery of them, so that they may have the means of becoming intelligent citizens. Every State should require physical training of every child so that he may become an efficient citizen. Not until this is done will small city schools introduce systematic physical training, though the war has made the need of such training apparent.

Thus we might continue to enumerate the influence of the war upon the schools. In brief, every school in the smaller cities has engaged in some kind of war work. In some of these the schools have undertaken to do everything that was suggested—Red Cross work, selling Liberty Bonds and Thrift Stamps, demonstration lessons in food conservation, gardening, etc. Through the school children much of the information regarding the war, food conservation, etc., has been disseminated.

Though the war has entered the schools, school men have not been unmindful of the fact that a state of war is unnatural and that the fundamental studies ought not to be crowded out by war activities. Superintendents and teachers have, however, found that they can vitalize the regular school subjects by introducing the war into the schools. They have found that the war offers an opportunity to train children in the service of the State. It is true that in peace time opportunity exists for the same kind of training, but the immediate need is not so keenly felt.

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KINDERGARTEN EDUCATION

By

ALMIRA M. WINCHESTER
SPECIALIST IN KINDERGARTEN EDUCATION
BUREAU OF EDUCATION

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KINDERGARTEN EDUCATION.

By ALMIRA M. WINCHESTER,
Specialist in Kindergarten Education, Bureau of Education.

CONTENTS.—I. The kindergarten and the war.—II. Kindergarten practice.—III. Survey of the kindergarten of Richmond, Ind.—IV. Recent publications pertaining to the education of young children.—V. Kindergarten legislation.

I. THE KINDERGARTEN AND THE WAR.

With war in the world turning everything topsy-turvy, institutions and existing social conventions, formerly taken for granted, are now subjected to rigid inspection and their meanings sifted, in order that nothing useless may be permitted to cumber the earth when every bit of time, space, labor, money, and thought is imperatively demanded for carrying on the world business.

Side by side with the process of excluding the useless is going forward the process of uncovering the essentials in human institutions and making them yield up their wealth of possibilities. Education has thus been discovered. The school, as one of the chief instrumentalities of education, has begun to come into its own. Moreover, since babies are assuming a new value in the whole scheme of democracy, the kindergarten in its relation to the school and to the home is regarded afresh with respect and expectation.

The kindergarten unit for the refugee children of France.—One very direct form of war service is that being provided by the kindergartens of America for the task of restoring to normality the little children living in the refugee colonies of France.

The service undertaken by the American branch of the International Kindergarten Union is that of equipping and supporting a kindergarten unit in conjunction with the children's bureau of the American Red Cross in France, to work under the auspices of the citizens' committee for the conservation of the children of America during the war. Miss Fanniebelle Curtis is director and Miss Mary Moore Orr associate director of the unit.

Miss Curtis and Miss Orr, after visiting the devastated regions of France, returned with the strong conviction that it is trained

kindergartners who are needed to relieve the misery of the children and to give back to them some of the joys of normal childhood through plays, games, stories, handwork, and other educative activities.

The pitiful condition of the little ones is described by Miss Curtis in an appeal addressed to the members of the International Kindergarten Union. Subjected to the horrors of bombardments and gas, bewildered and benumbed by the necessity for silence in the presence of the frightful boches, undernourished, apathetic through suffering so many terrors, these unfortunate children are in danger of losing their sanity unless something immediate is done for their restoration. In Miss Curtis's own words:

> They have been in the gassed regions, they have been lost on the fields of Flanders, they have fled from their burning villages, they have been actual prisoners with the civilian population back of the enemies' lines.

The Germans are sending back from the prison camps thousands of civilians, keeping them in Switzerland for a certain time and then allowing them to return to France. At Eviansles-Bains, the distributing point, child refugees are coming in at the rate of 500 a day. Miss Curtis declares:

> It is a tragedy that has no parallel in the world's history. The children are being placed in colonies, in chateaus, in convents, in convalescent hospitals until victory with honor is won. They need songs and stories and the joys of childhood restored, and more than all they need mothering.
>
> Every foreign mail brings more pitiful stories. It is childhood's darkest hour.

The kindergartners of America have raised over $35,000 to defray the expenses of equipping and sending kindergarten teachers to France. A number of teachers have already sailed, and others will follow as soon as funds for the purpose can be raised.

Conservation of the children of America.—To conserve the well-being of American children is properly regarded as a form of war service. The campaign, organized by the Children's Bureau of the Department of Labor, for saving the lives and bettering the health of 100,000 babies during the current year, has been earnestly supported by parents and teachers. Kindergarten teachers have made it their business to assist in the work of weighing and measuring young children, and recording the facts brought out by the physical examinations. In some instances follow-up measures are being instituted in order that immediate results may be secured for the kindergartens. This is the case in Worcester, Mass., where the supervisor of kindergartens issued to the teachers the following instructions:

> While the baby measuring and weighing records are available in your school building, will you please make a list of the names of all children in your school district who will be of kindergarten age this coming school year? Send

to me the number—figures only—you discover. I will then take some steps to help you bring those children in promptly in September, 1918.

This will be an effort to avoid the dropping-in-at-any-time that so pulls down our kindergarten organization and work.

Another form of service in which kindergartens have engaged during the past 15 months is that of cooperating with those social agencies, in their respective communities, whose concern is with child welfare. To provide wholesome kinds of interest and activity in connection with the social side of child life, and thus to protect childhood from some of the blighting influences of war conditions, kindergarten teachers are spending their nonteaching hours in telling stories to groups of children, supervising some of the play in the small parks and public playgrounds, directing children in the cultivation of back-yard gardens, organizing excursions to woods or parks convenient to the neighborhood, and other similar activities. Nor are the teachers unmindful of their responsibility for seeing to it that children are gathered in and kept in school nor of their further responsibilities toward the mothers, especially in regard to instruction in hygiene, care and wise purchasing of food, and more efficient ways of living.

Kindergarten practice itself is influenced through the new insight, for teachers realize as never before the significance of the laws which govern all right association of individuals. Self-activity must always be the guiding principle of the kindergarten, but the individual is to be developed as a member of a group; as such he must conform to, must obey the laws which rule the whole, and subordinate self-gratification to the good of the whole. Since the children who fail to learn this lesson early in life become weaklings, self-seeking individuals, and moral failures, kindergarten teachers are more consciously than before directing the children in exercises which call for instant response in concerted action and for conformity to the desire of the group; also in organized plays which demand self-subordination and teamwork, and which make for helpful, self-controlled children.

The kindergarten as a factor in Americanization.—It is no new thing for the kindergarten to provide some of the means for transforming aliens into Americans. A permanent argument for kindergarten extension is that the children of the foreign born by means of kindergarten training are familiarized with English before formal school work sets in, and time is thus saved for the grade work. Furthermore, home visiting and holding mothers' meetings have been part of the kindergarten teachers' business and have been a factor in bringing the foreign family into an understanding and appreciation of the customs and standards of the new country.

The unique element in the relation of the kindergartner to the foreign family is that she reaches the members in a normal way before their home life has been disturbed. When the district nurse or the social worker comes to the family, it is at a time when economic pressure or sickness has forced them to the position of want, in which they are discovered.

In recent years the development of parent-teacher associations has tended to absorb the kindergarten mothers' meeting into the larger body, and the practice in public-school kindergartens of requiring kindergarten teachers to teach in the classroom both morning and afternoon has rendered it difficult for the teachers to visit in the homes as they used to do. The timid, non-English-speaking woman, conscious of being different from her neighbors, has been reluctant to attend the larger, more formal school meeting, and has thus missed the participation in community affairs and the opportunity for learning the language which her children are using in their daily school life and which her husband has acquired through the night school, the shop school, or the lodge school.

One result of this situation is that the mother, the center of the household, is neglected and often looked down upon by husband and children, who have outstripped her in the acquisition of the tools of citizenship. As the distance between them increases she grows apathetic, antagonistic, and reluctant to rouse herself to learn the language and customs which would help to bridge the distance. This is the opportunity for the kindergartner. Efforts are now being directed toward the establishment of more kindergartens, especially in regions where large numbers of aliens are employed in necessary industries, since the barrier of noncommunication can thus be removed while the children are young and unconscious of any difference between themselves and their American neighbors; and toward the restoration to its former place and function of the kindergarten mothers' meeting, and the development of the " door-step " meetings, since in them can be found the machinery for a fine give-and-take relationship between old Americans and more recent Americans.

Kindergartens in Ordnance schools on Government reservations.— Government reservations for industrial plants are necessary accompaniments of the present emergency and are being developed under the direction of the industrial-service section of the Ordnance Department. Wherever the needs of the workers and their families require it a new town is being created, with suitable houses, school buildings, church buildings, Y. M. C. A. buildings, and other facilities for wholesome, clean, social living. As an integral part of the school system kindergartens are being provided, and teachers are sought who possess qualities essential to successful community co-

operation. Cottages or teacherages are being built for the housing of the teachers. Each school has one room planned purposely for a kindergarten, and the equipment and supplies are to be excellent in quality.

These reservation kindergartens offer to the teachers chosen to direct them rich opportunity for the best kind of patriotic service. Comparatively few kindergartners can go abroad at present for service in France, but here in America is an opportunity to do a vital and far-reaching piece of work. Not only the school population is to be educated, but the entire community as well. There will be playgrounds and other forms of recreational activity which the kindergarten teachers will be peculiarly fitted to direct.

Schools for the colored children, as well as for the white, will be established on the reservations near Charleston, W. Va.; Nashville, Tenn.; and Sheffield, Ala.

Retaining the name "kindergarten."—It was to be expected that some discussion on the rejection or retention of the name kindergarten would follow the entrance of the United States into war with Germany. That the institution itself has become thoroughly naturalized there can be no doubt. No other phase of education is more completely democratic and American than the kindergarten. In this respect the prophecy of the founder has been fulfilled that in America, the new world where new life was and is unfolding, the new education of the human race would take firm root. In Germany, the geographical birthplace of the kindergarten, little more than the outer form and the name is discoverable; the essence is missing. The kindergarten is not at home in Germany.

The edict of the Prussian Government in 1851 forbidding the establishment of kindergartens is tacit evidence that a system of education for the people based upon the principle of self-activity, freedom, and respect for individuality was considered a dangerous foe to the success of military autocracy. It was charged at the time that the tendency of the kindergartens was toward atheism and revolution, an indictment that inspired the Berlin comic paper to point out as objects of suspicion "those three-year-old demagogues with their inflammatory speeches, those red-handed revolutionists in swaddling clothes."

The contention of those who desire to change the name kindergarten is that, since the institution is truly Americanized, the name should undergo the same process; also that the new name should bear in it the suggestion of organic relation with the school system. But the clumsiness and ineptitude of the substitutes which have been suggested make it difficult to believe that any of them will be adopted.

"Children garden" or "child garden," the literal equivalent in English for kindergarten, is acceptable in so far as it retains the description of the institution; but the sound of it is awkward and disagreeable to the ear.

"Subprimary" is a term which has been offered, and in a few systems adopted, because it is said to carry out the idea of a real connection between the kindergarten and the rest of the school organization. The objection to it lies in its failure to define the essence of the kindergarten; "sub" makes the institution a mere annex to the primary grades and expresses only an external relation.

"Primary circle" has been suggested on the ground that the present name emphasizes the aloofness of the kindergarten department from the school as a whole, whereas primary circle is expressive of the truth that the aims, principles, and ideals of the kindergarten are basic of what is to follow in child training. The reason is good, but the name offered is not a success. In school vernacular "primary" is limited in its meaning, and has become synonymous with first grades; primary circle, therefore, being narrowly interpreted, would cause the institution to be regarded as a side issue externally related to the first grade.

"Baby nest" is the designation chosen in place of kindergarten in Italy. The description of the baby nests given by Signorina Amy Bernardy at the Pittsburgh meeting of the National Education Association leads to the conviction that, according to the American understanding of things, these institutions would be classed as day nurseries.

A passing observation should be given to the terms "school of childhood" and "house of childhood." The former name was selected to designate the department for the youngest children in the school of education of the University of Pittsburgh. The projectors of the school wished to be free from the limitations which would naturally be imposed upon the experiment if it bore the name kindergarten, and from having judgments passed upon the work according to kindergarten standards. The "house of childhood" is the name selected by Dr. Montessori to describe the type of educational institution devised by her. The classes were originally established within the tenement houses erected by an association for good building in Rome, and were intended to provide for the early training of the children of the workmen housed in the tenements.

Among the members of the International Kindergarten Union it is generally felt that "kindergarten" should remain. No other word so aptly and euphoniously describes the thing signified, an organization in which each individual child is regarded as a living organism or plant whose inner nature is capable of unfolding its richness in response to a favorable environment and under the gardener's care.

II. KINDERGARTEN PRACTICE.

Turning from the name to the institution itself, it is evident that modification in practice is steadily proceeding. Aside from the oft-cited illumination coming from "the light of modern psychology and child-study," several factors are contributing to bring about change of methods as well as of materials. Among these are:

(1) The need for giving to primary teachers and supervisors a clear exposition of kindergarten principles and methods.

(2) The new faith in democracy, expressing itself educationally in new faith in children's ability to direct their own activities and to organize their own groups.

(3) The friendly attitude toward experimentation with methods and materials, coupled with the "newly acquired devotion to the checking of results."

(4) The increasing number of kindergarten teachers who each year study education in colleges and universities.

Testing and measuring progress of kindergarten children.—Until recently it has been urged that the difficulties in the way of securing a satisfactory measure of the results of kindergarten training are insurmountable, and that the best things that happen to children because of a year or so in kindergarten can not possibly be reduced to terms of objective measurement. In answer to this, Dr. W. C. Bagley, in his introduction to The Kindergarten in Japan,[1] points out that, while the ultimate effects of certain educational doctrines may be difficult to predict and the immediate effects difficult to determine and evaluate, "these are assumptions neither to be made lightly nor to be used as a cloak for mental inertia. The very difficulty should rather be a spur to the devising of means toward accurate prediction, exact measurement, and just evaluation."

In response to the spur prick, a beginning has been made during the past year of a valuable type of work. Under the leadership of Miss Alma L. Binzel, of Minneapolis, who devised a tentative set of tests of children's abilities, a group of experienced kindergartners undertook to give the tests and record the results after a uniform manner. Certain typical kindergarten activities were selected, appropriate tests for their measurement were determined, and groups of children were tested at the beginning and again toward the end of the school year. The progress in ability was recorded on a card devised for the purpose, and a summing up of the findings was made by Miss Binzel.

The activities selected for the project were those expressive of the following forms of ability: Physical control; language, as to range

[1] The Kindergarten in Japan, by Tsunekichi Mizuno.

of vocabulary and ability in oral composition; musical expression and recognition; constructive ability as shown in both temporary and permanent constructions; skill in graphic presentation; scientific aptitude as indicated by identifying objects, answering questions as to use and source of materials and as to processes; and mathematical aptitude as shown by using number, counting, and recognizing number groups.

It was the opinion of Miss Binzel that, in spite of handicaps, the results of the preliminary testing justify the continuance and expansion of the work; that in due course of time it will be possible to arrange scales of kindergarten work just as spelling, handwriting, arithmetic, and composition scales have been devised for grade work; that ultimately, norms will come into existence that will be valid in the measurement of progress due to kindergarten education; and that while growth in certain qualities of character does not readily lend itself to quantitative expression, it is legitimate to draw inferences as to developing personality from the scientific data furnished by the tests.

Waste between the kindergarten and the primary school.—Progress has been made in the study undertaken by the committee on minimum essentials in kindergarten and primary grades of the subject of what and how much of the kindergarten's contributions to the child's development are utilized in his subsequent school years. The report [1] made by the committee chairman, Miss Annie Moore, treats of investigations made in the field of arithmetical concepts, of literature, and of the use of free oral expression in first grade.

A series of tests in fundamental arithmetical concepts was used to measure the abilities of kindergarten and nonkindergarten children in order to ascertain whether children entering first grade after a year of kindegarten training are stronger in arithmetical concepts than children with no kindergarten training; also, if there is a difference in ability to learn, whether it is due to difference in age. The tests were applied once at the beginning of the term for initial ability, and again at the close for amount of improvement.

The score showed that the kindergarten children made a higher record of *points* in both tests. The *rate* of improvement was about the same in both kindergarten and nonkindergarten children. The *time* required by the nonkindergarten group was less in the first test; in the second test the time required was the same for both groups. In regard to age, the results indicated that the kindergarten pupils, even though slightly younger than the nonkindergarten pupils, made higher scores in points.

A comparative study of the literature used in kindergartens and first grades was made in order to determine the amount of duplica-

[1] Proceedings of the International Kindergarten Union, 1917.

tion occurring and the degree of progression secured in the subject. The results of the study show, among other features, that kindergarten and first-grade teachers are quite at one in regard to the use of nursery rhymes; that in the selection of literature, first-grade teachers in general choose whatever gives the best material for teaching reading, thus subordinating literary values to the technique of teaching beginning reading; and that in some instances kindergarten teachers send forward to the first-grade teachers a list of stories that have been used in the kindergarten.

The study of the use of free oral expression in the first grade was based upon the principle involved in the fact that "normal children make remarkable progress in the mastery of their mother tongue during the preschool period, and that this mastery is attained through the abundant and free use of speech in purposeful and significant ways." Increased language ability among kindergarten trained children is a recognized result, due to the freedom permitted in the kindergarten and the encouragement of conversation about objects and experiences of immediate and personal interest. Similar opportunities for free, natural, oral expression are advocated for primary grades by numbers of schoolmen; but that theory is ahead of practice in this respect is made apparent by the results of the study; for the tendency is clearly toward silence on the part of the children in primary grades, a condition which prohibits their learning how to use English fluently, intelligently, and correctly, as far as school experience is concerned.

The course of study in the kindergarten.—For the purpose of furthering the better understanding of kindergarten aims and methods by primary teachers and supervisors and providing constructive suggestions for the many kindergarten teachers who have to work without a supervisor's assistance, a group of kindergartners has undertaken to formulate the kindergarten curriculum and the standards involved therein. The need for a sane presentation of a sane curriculum in published form is emphasized by the fact that strange, extravagant practices are being introduced here and there under the name of "experimentation." Clear ideas as to essentials are evidently necessary to enable the "experimentors" to discriminate between freakish novelty and that which is validly original.

In preparing their formulation the committee of kindergartners have treated the curriculum in its twofold aspect of content or subject matter and forms of expression or activities. The terms "oral expression," "manual activities," "drawing," "physical training," "nature study," and "music" have been adopted so as to be in accordance with the usage in formulations of primary-grade curricula.

The various divisions of the subject are discussed as to: Aims, general and specific; subject matter; methods; attainments. In the

section devoted to language, wrong as well as right methods are illustrated in order to throw into relief some faults commonly committed.[1]

Results of experiments with self-organized groups.—As evidence of the new faith in children's ability to initiate and direct their own play and work activities, various forms of experimentation are in progress. Those in charge of these experiments undertook the work firmly believing that self-activity means what it says; that the spontaneous play of children is educative; that children are rich in purposes at present and are not merely potentialities; that they should live in the present up to the best of their ability; that they should be measured by their intelligent cooperation, their ability to initiate and control situations, and their power of self-control; that in groups organized by the teacher the leadership is one-sided, the adjustments are made by the teacher, the plans and problems are set by her, and opportunities for experimentation or invention are meager.

While no scientific report on the experiments is as yet forthcoming, some conclusions appear in a report presented at the International Kindergarten Union convention (1917), by Miss Faye Henley. Miss Henley points out that a "spontaneous group" is a free organization in regard to numbers. Sometimes one child will work alone; sometimes groups of two or three will work together; and sometimes the entire group is included. An "organized group" is one organized by the teacher and held together by her.

The conclusions reached so far are:

(1) That the spontaneous or self-organized group provides for the practice of democratic principles; that the children make their own social adjustments and find opportunity for leadership, initiative, and experiment.

(2) That the limitations in self-organized group work are that some children merely repeat what pleases them, without progressing; some children do what is easiest for them; some become capricious and even lawless.

(3) The place of the teacher in the organization thus becomes clear. She must keep the balance, help to improve standards, be ready to give expert advice, stimulate lagging interest by bringing in new aims or new use of materials.

III. SURVEY OF THE KINDERGARTENS OF RICHMOND, IND.

Of recent years a number of surveys have been made of the school systems of various cities, and the kindergartens, being included, have come in for their share of comment; but to the kindergartens

[1] The report will be published shortly as a bulletin of the Bureau of Education.

of Richmond, Ind., belongs the distinction of being surveyed as a system of kindergartens, and by a kindergartner, Miss Alice Temple, of the school of education of the University of Chicago.

The survey was undertaken with a view to achieving a closer coordination between the kindergartens and the grades. The report[1] is a most valuable document containing excellent suggestions for groups of kindergartners who may wish to conduct a survey of their own kindergartens.

In carrying on the investigation Miss Temple visited each of the eight kindergartens twice, and visited the first-grade classes; held conferences with the teachers both as groups and as individuals; examined the course of study for kindergartens printed in the superintendent's report for 1912; studied information supplied by the superintendent; and examined the written answers to questions contributed by kindergarten teachers and first-grade teachers.

The report is organized under the following sections: The kindergartens; the room equipment; the teachers; the relation between the kindergarten and the first grade; and the curriculum and methods of the kindergarten.

In regard to the kindergartens, Miss Temple found the prevailing social atmosphere wholesome and the relations between children and teachers all that could be desired; but in some of the classes the children have been trained to respond automatically to a series of piano signals and to certain artificial devices for securing attention. This method tends to produce dependence upon particular forms of guidance rather than intelligent self-control.

Commenting upon the room equipment, the report recommends more growing plants and some form of animal life. Of the materials for play and handwork, the criticism is that they are inadequate. The kindergartens are supplied with the "traditional" materials. It is recommended that larger blocks, together with boards of varying lengths, be added to the equipment, in order that the children may make buildings and furniture for their own play use. A "kinderhaus" or five-fold screen to inclose a space for a playhouse is also recommended.

According to present-day theory, materials are primarily valued as means through which children may give expression to their ideas and carry out their play purposes. This means that any of the traditional materials may be discarded and more adequate ones used. Among these more adequate supplies are large-sized and heavy papers for construction work; soft wood cut in blocks and boards, together with hammers and nails for construction; easily handled textile materials for weaving; and materials for simple and crude dolls' clothes.

[1] Supplementary educational monograph of the School Review and Elementary School Journal, Vol. I, No. 6.

Small toy animals, small dolls, toy utensils, and dishes to use in connection with building plays are recommended.

In respect to the teachers and their needs, it is recommended that a well-trained and thoroughly efficient supervisor of kindergarten and primary grades be secured; that the kindergartners be encouraged to attend summer sessions and pursue further study in kindergarten education; and that a more profitable use be made of the afternoon hours of the kindergartners. It is pointed out that the constructive movement within the kindergarten during the past 10 or 15 years has made rapid progress, and that kindergartners should put themselves in the way of further study at one of the progressive normal schools or universities in order to keep pace with the best developments in kindergarten practice.

The need for the continuity between the work of the kindergarten and that of the first grade is apparent. It is suggested that the teachers and supervisors work out a kindergarten-primary curriculum which shall provide for continuity in each of the subjects common to both: Community life, industrial and fine arts, language, music, physical education, nature study, number work.

A number of first-grade teachers, while recognizing the independence of the kindergarten-trained children in many directions, find them too dependent on the teacher's help in handwork. If kindergarten teachers would plan simpler forms of handwork and be satisfied with cruder products, they would be able to develop in the children a desirable degree of independence.

The criticism by the grade teachers that kindergarten children want to talk and play instead of work is a criticism of the first grade rather than of the kindergarten. Two reasons for this so-called restlessness are that the seat work in the first grade does not call forth the thought or the effort of which six-year olds are capable, and that not enough time is allowed for active play.

Commenting upon the curriculum and methods of the kindergarten, Miss Temple points out that too great quantity and variety of intellectual material was introduced within a given period of time, and the subject matter was unwisely utilized to present ideas and ideals which belong not to the kindergarten but to a later stage of development.

She criticizes as devoid of real thought on the part of the children lessons which begin with a series of exercises dictated by the teacher the purpose of which is to help children take some simple blocks from a box, and are continued by directions as to certain moves with the blocks, and are finished by returning the blocks to the boxes in an exact manner. The definition of a right or wrong result in such a lesson is not determined by the fitness of the object made for the use of it, but whether or not it duplicates the form made by the

teacher. It is pointed out that a chance should be given for testing the efficiency of the objects constructed and that a motive beyond a desire to please the teacher should be given to children's work.

The report goes on to deal with each form of activity in the kindergarten, drawing, language and literature, plays and games, and music, in every case offering constructive and stimulating suggestions for the improvement of subject matter and methods.

The spirit in which the Richmond survey was undertaken, the friendly cooperation with which it was carried on, the carefully prepared report, with its thoroughly practical and constructive recommendations, all unite to commend not only this particular piece of work, but also this type of work as worthy of being widely applied to kindergarten systems.

IV. RECENT PUBLICATIONS PERTAINING TO THE EDUCATION OF YOUNG CHILDREN.

"PLAY LIFE IN THE FIRST EIGHT YEARS.[1]"

Miss Palmer has carefully listed games and plays that are types of those best suited to the gradually developing powers of typical children of the ages from 1 to 8 years. Even a casual reader can not fail to get from these lists and explanatory descriptions a logical idea of the mental unfolding of the small child and the reaction he requires from his environment to further his growth into a well-balanced, useful citizen of high ideals.

The book is neither technical in phraseology nor difficult in style and is so definite in its portrayal of the type of games needed by the child at various stages in his development that it should be of great value, not only to the trained teacher, but to the parent or nurse or social worker who has the supervision of small children.

"PRIMARY HANDWORK" AND "ILLUSTRATIVE HANDWORK."[2]

The worth of the first-named book lies in the value-standard it sets. It does not view the primary currisulum as a certain amount of knowledge to be acquired by the child more or less painfully in preparation for the next higher grade; it sees each period of the child's development as a time seething with childish interests and enthusiasms which, rightly used, make of each school year a triumph of achievement, development, and happiness. The problems of construction are approached from the child's point of view and interest. The standard of the work is measured by the child's ability to do and think. The child's growth is shown by his increased ability to judge his efforts and intelligently measure his successes. This produces what Dr. Dewey calls a "child who has something to say rather than

[1] By Luella A. Palmer.

[2] By Ella Victoria Dobbs.

having to say something." Miss Dobbs shows clearly the way in which the artificial gulf between the kindergarten and the primary grades can be made to disappear.

In the second-named book are offered practical working outlines upon which the teacher may build. The object of the book is to prove by means of work already tried in actual schools:

1. That illustrative handwork can be used profitably as a method of study by giving the children something to do which they will wish to do, but which can not be done successfully without a practical knowledge of the subject matter to be studied.
2. That illustrative handwork can be used profitably as a method recitation by requiring the children to make something which they can not make successfully unless they have gained clear and definite ideas of the subject which has been studied.
3. That work of this kind not only has a place as a regular form of study and recitation, but that it can be done without exceeding the limit of time allotted to the subject.
4. That the equipment and materials are easily obtainable in any school.
5. That work of this kind may be carried on in the regular classroom.
6. That such methods may be used by teachers who have not been trained in the manual arts.

"A COURSE FOR BEGINNERS IN RELIGIOUS EDUCATION."[1]

Miss Rankin, a trained kindergartner, has brought her knowledge of child psychology and the knowledge gained from actual contact with many children to the problem of making a year's course of Sunday-school lessons that will make for a better feeling, thinking, and doing in the life of the little child, and that will also be quite simply and definitely stated, so that the average untrained Sunday-school teacher may use them literally as the supporting framework for her work.

"THE USE OF THE KINDERGARTEN GIFTS."[2]

The use of the kindergarten gifts carries from cover to cover a plea for a wider knowledge on the part of the teachers of every material to be used, and a greater insight into the process of the growth of little children. The book is of particular value to the recently graduated kindergarten student who has had a limited opportunity for actual teaching experience, and to the teacher who emphasizes organized group work in her school.

BULLETINS NOS. 1, 2, 3, 4, AND 5: BUREAU OF EDUCATIONAL EXPERIMENTS.

To quote from the preface in one of the bulletins:

The Bureau of Educational Experiments is made up of a group of persons who are engaged in first-hand efforts for improving the education of children, and who have all shared in the general movement that has brought about a

[1] By Mary Everett Rankin. [2] By Grace Fulmer.

more scientific study of them. They feel that the development of some more comprehensive plans of utilizing the results of the recent interest in "free education" is the next step, and that it depends essentially upon securing a closer cooperation among experimenters.

The bureau aims to accomplish these ends by giving support to present experiments, by initiating new experiments, by collecting and making available for public use information about the whole field of experiments in education, and by hastening the introduction of newly acquired methods through actual teaching experiments.

The first bulletin is entitled "Playthings"; the second is a study of Animal Families in Schools; the third, fourth, and fifth bulletins describe the kind of work being done at The Play School, by Caroline Pratt; at The Gregory School, by Margaret Naumburg; at Teachers College Playground, by Mary Rankin; at The Home School, by Mattie Bates; and at "Stony Ford School," by Mr. and Mrs. Hutchinson.

"SELECTED LIST OF STORIES."

The literature committee of the International Kindergarten Union has published an excellent list of stories to tell to children in kindergarten, first, and second grades. In presenting the list the committee point out that extended lists prepared by libraries and other compilers are easily obtained; and for that reason it was thought best to confine the committee's endeavors to the preparation of a limited list of stories of distinctly literary quality, each story having a proved value and interest for children.

With the title of each story are listed several books in which different versions may be found.

V. KINDERGARTEN LEGISLATION.

The excellent mandatory-on-petition law has yielded such good results during the past five years in California that friends of the kindergarten have been stimulated to secure the passage of a similar law in other States. Their efforts have been successful in Maine, Oregon, Tennessee, Washington, and Texas.

In Maine the superintending school committees are required upon the filing of a petition coming from the parents or guardians of 30 or more children between 4 and 6 years of age, living within a mile of a public elementary school, to maintain a kindergarten as a part of the common-school course, unless otherwise instructed by the city or town. The kindergarten may be discontinued if the daily average attendance falls below 15 children. In respect to kindergarten teachers the law provides that no person shall be allowed to teach in any kindergarten who has not completed at least a two-years' course in training and received a certificate or diploma from a recognized

kindergarten training school, approved by the State superintendent of schools.

In Oregon the peculiar provision of the kindergarten bill is that the establishment of kindergartens is confined to the city of Portland, the law stipulating that not more than five and not less than three kindergartens must be installed during the year.

The law of Tennessee is a permissive one—that is, cities and towns may establish kindergartens, but must support them by means of local taxation.

In the State of Washington the enactment provides that the kindergarten shall be a part of the school system and be supported just as the primary and upper grades are supported.

The Texas law is similar to that of Maine. A noteworthy feature of the campaign was the hearty support given to the measure by the officers of the State department of education. Emphasis also was placed upon adequate provisions for well-trained kindergarten teachers.

In a number of other States the Federation of Women's Clubs, the National Congress of Mothers, and other women's organizations are taking an active interest in State campaigns for more public-school kindergartens.

New kindergarten training schools.—Closely connected with the legislative successes in Texas and in California is the announcement of the opening of three new kindergarten training schools. The College of Industrial Arts, Denton, Tex., has organized a department of kindergarten education, with Miss Mabel Osgood, formerly of the Milwaukee State Normal School, in charge; and in the Sam Houston Normal Institute, Huntsville, Tex., a kindergarten department is being incorporated. Miss Grace Fulmer has opened a school in Los Angeles, Cal. Children's classes in kindergarten and primary work and a department of kindergarten and primary education for young women are included. Emphasis is placed upon open-air work.

A two-year kindergarten training course was organized in 1916 in the State normal school, at Tempe, Ariz.; a training class, under the direction of Miss Laura Fisher, was opened in Boston, the same year; and Miss Laura Cushman organized a training school in Miami, Fla.

Kindergarten departments are also being instituted in connection with the schools of education in the University of Nebraska, at Lincoln, and in the University of Missouri, at Columbia.

Appropriation for kindergarten education.—By no means the least significant event of the past year is the appropriation granted by Congress whereby Federal support has become available for the important field of kindergarten promotion and practice. Two specialists in kindergarten education constitute the staff for the present.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1918, No. 50

HOME ECONOMICS

By

MRS. HENRIETTA W. CALVIN and
CARRIE ALBERTA LYFORD
SPECIALISTS IN HOME ECONOMICS, BUREAU OF EDUCATION

[Advance sheets from the Biennial Survey of Education in the United States, 1916–1918]

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HOME ECONOMICS.

By Mrs. Henrietta W. Calvin and Carrie Alberta Lyford,

Specialists in Home Economics, Bureau of Education.

Contents.—Introductory—Home economics in the public schools—State supervision of home economics—County supervision of home economics—State normal schools—Colored schools—Home economics in colleges and universities—Effect of war on college courses—Practice homes—Practical application of food courses in the management of lunchrooms, cafeterias, etc.—Smith-Lever extension work—New phases of home economics—Child welfare courses—Newly established and reorganized departments—Surveys—Organization of women interested in home economics education—Home economics and national service—Legislation relating to home economics.

Progress in home economics education has been marked in recent years. To the normal rapid increase in the number of high schools offering courses, the extension of systematic training in home making into the lower grades, the establishment of new courses in liberal arts colleges, and the more adequate support of departments previously organized has come increased impetus due to Federal and State legislation and to the recognition by war committees of their need of specially trained home economics women.

Knowledge of the importance of training in household arts has not been confined to the United States.

Queen Mary, of Great Britain, issued an appeal to English teachers to take up the study of home economics since the demands for teachers of "domestic subjects" was so much greater than the supply. She emphasized the increased need of these teachers for the period of readjustment after the war.

A leading English educator states:

> In view of the development of domestic training which may be anticipated both in elementary and technical schools after the war, in the interests of national health and national economy, there is reason to think that, so far from there being a surplus of teachers, there is more likely to be a difficulty in obtaining sufficient trained teachers to meet the demand for them which must arise.

The secretary of the Bombay provincial advisory committee, in requesting information from America, states that "there is a growing desire here to establish good schools for the teaching of domestic science and household arts."

From New Zealand come requests for the names of home economics women who can be secured to organize and administer the home eco-

nomics instruction of that country, thus exhibiting an increased public interest in this type of school work.

Santiago, Cuba, questions as to the organization of instruction in "maternal schools" for young girls, stating that it has been proposed to enact a law establishing these in that Republic.

One of the leading normal school men of Japan visited the home economics department of the leading colleges and universities in this country because of interest in home making as a subject to be taught in the schools of that country.

The Ontario Agricultural College can not accommodate all who wish to come to Macdonald Institute for home economics training, and many desire home economics training who can not be spared from home. The college, therefore, is extending the usefulness of Macdonald Institute by opening branches here and there in such communities as are willing and able to cooperate.

Several of the missionary boards are asking for domestic science teachers in various countries, among them China. One call has just come from the Woman's Union Missionary Society, 67 Bible House, New York City, for a domestic science teacher in the school of the society in Shanghai, China. An opportunity is presented not only to teach domestic science to Chinese girls, but to train Chinese young women as teachers of domestic science, so that they will go out into the public schools.

HOME ECONOMICS IN THE PUBLIC SCHOOLS.

Courses of study and methods of teaching have been greatly modified by war conditions. The substitution of Red Cross and relief sewing for the usual projects of prewar times has so greatly improved teaching in textiles and clothing that there is little reason to believe there will be a reversion to the older type of projects after the close of the war period.

It has been possible to teach the effective use of the sewing machine in the fourth and fifth grades, to increase speed greatly, and at the same time secure a high standard of workmanship in sewing classes; to place responsibility upon children not heretofore considered mature enough to take any initiative, and to maintain interest in class work independent of personal possession of articles worked upon.

The sewing classes in the public schools of Chicago made 250,000 garments for Red Cross and relief work in the winter of 1917–18, and in all cities of the United States the production was in almost like proportion to the number of children in attendance.

The exhibition of children's ability in these lines is resulting in an entire change of course of study. More work of commercial value will hereafter be done; more speed will be attained; and more funda-

mental principles of good taste, good hygiene, and good economics will be taught.

The modifications in food courses have not been so readily adopted. This has been due to many complicating factors. Equipment now in use has been of a kind not easily adapted to new laboratory practices; cooperation of principals and superintendents of school lunches has not always been secured; there has been difficulty in articulating school work with the home life of the child, so that when it was desirable to secure food supplies from the home and return the cooked product to the home, parental approval has been withheld.

The changes in food courses have usually been along the lines of teaching the use of food conservation recipes, and explaining to the children the meaning of food conservation rules. Many home economics teachers have gathered the mothers into regular classes and instructed them in food preservation and food conservation. The following material has been gathered by a supervisor of home economics:

1. In one of the large private schools in St. Louis all advanced work for the older girls consists of Red Cross work in dietetics and the girls take the Government examinations at the end of the course.

2. At the North Bennett Street Industrial School the following report is given of the work in the school:

Substitution of entire wheat, bran, graham, cornmeal, and rye wherever it is possible in quick and yeast breads, gingerbread, and inexpensive cakes.

Substitution of oleomargarine, mazola, salt pork for butter, and effort made to use as little as possible. Substitution of leguminous vegetables, nuts, cheese, and fish for meats.

No meat up to the present time has been served in our lunch room. For the past two weeks all desserts requiring sugar have been replaced by fruit salads, plain fruit, dried fruit dishes, cakes and puddings sweetened with molasses and sirups.

Substitution of molasses and sirups for white sugar in all desserts possible.

Much more drill and intruction in use of substitutes and balanced menus than before.

3. The School of Domestic Science at the Young Women's Christian Association in Boston reports the following changes in the work:

The regular textbook, "Menus and Recipes for Fifty," is not used except for meats and vegetables. New recipes are being worked out to meet the Government requirements. As in all other places, they are emphasizing the reduction of the amount of meats, sugar, wheat, animal fats, etc. At their breakfast, which is prepared by the students in the domestic science class for their family of 50, their main course has been omitted in order to meet the situation.

4. At the Practical Arts School in Boston, which is an entirely different type of school, the following summary of work is given:

We plan first to adhere as closely as possible to our former course of study, believing that in an educational institution the pupils must still be taught the underlying principles of cookery.

Second, we do this, however, by using for the illustrations of those principles, so far as possible, the foods recommended as substitutes by our food administrator; for example, vegetable oils in place of animal oils; rye and other dark flours in place of wheat.

Third, to keep closely in touch with the food situation as to supply prices and to use these topics in our feed study and dietetics classes. To emphasize the

need of conservation along the lines of time, energy, health, fuel, and clothing, as well as in foodstuffs. To keep the prices in our lunch room at the lowest possible level for obvious reasons. So far there has been practically no increase over former prices except in the case of rolls or muffins, and butter.

To observe carefully the meatless and wheatless days advocated by the Government. To serve little cake, no frostings, few sweet puddings, etc., and to omit extra sweetening wherever possible.

To encourage our pupils to give their time freely outside of school to patriotic enterprise. To this end they assist every day in the Liberty Bread Shop, Food Facts Bureau, and our own relief work.

In the Cambridge Trade School they are preparing nearly 100 quarts of corn chowder, which they are selling to the pupils at 11 cents a quart. This is taken into the home with the card stating the food value of the dish, to make the parents realize that the school is trying to give the girls practical work which should be of real value in their own homes.

The Vocational School for Girls in Brookline submits the following report on the work being done in regard to changes in food courses:

The work has been subject to change without notice almost, as various needs have seemed to rise. We have worked with corn meal and other corn products, with rye and rice and oatmeal, with substitutes for sugar even before the acute need was thrust upon us from the impossibility of obtaining sugar. We have worked upon the substitute sweets earlier than we should otherwise have done, both because of the needs for supplying to our own pupils legitimate and desired sweets, to lessen, if possible, the use of those not allowable; and also because the girls have wished to pack boxes for their brothers and friends in France and to aid school sales for war causes. We are teaching the use of substitute fats, and the elimination of the use of fat in cookery, of course! We are laying stress upon the various winter vegetables as savers of other foods and upon the use of fruits and ways in which the canned foods may be well prepared and served.

Some teachers of food classes have been able to establish cooperation enterprises. In Yonkers, N. Y., there were 20,000 quarts of currants offered the schools. This was made into jelly to be given to the Red Cross. Containers were needed and the milk men left slips at all houses on their routes that they would collect and take to the school all containers contributed. A local refinery gave 600 pounds of sugar. Local ladies did the work, both learning and doing.

These are but illustrations of the changes in method and spirit that have developed among home economics teachers, pupils, and mothers as a result of necessary modifications of cooking practices.

The important developments in home economics in elementary and secondary schools in Ohio have been through the school lunch work, especially in rural and village schools, and with girls' home making clubs.

North Carolina reports "many schools are adding departments of home economics."

Home economics is rapidly introduced into the high schools in Washington. A State law provides that either home economics or agriculture shall be taught in all eighth grade classes.

The State of Florida especially evidenced interest and appreciation in home economics education by the following legislative act:

Be it enacted by the Legislature of the State of Florida:

SECTION 1. Any county board of public instruction, or the board of trustees of any special tax school district, is hereby authorized and empowered to establish and maintain a department of home economics, or a department of home demonstration work in any of the high schools of this State, and to pay the expenses of such department out of any public school funds at their disposal.

SEC. 2. Section 1 of this act shall extend to and include canning clubs, corn clubs, and departments of agriculture, to acquire land, stock, fertilizer, seed, and implements necessary to maintain the same. And no person shall be employed to demonstrate, teach, or instruct in any of the departments mentioned herein who does not hold a certificate of graduation from a recognized college, university, or normal school, indicating special training in home economics, home demonstration work, or agricultural work, or any one who has not had satisfactory experience in home economics or canning club work.

SEC. 3. County boards of public instruction are further empowered under this act to employ county agents who shall, under the joint supervision of the county superintendent of public instruction and the Florida State College for Women or the University of Florida, conduct practical demonstration work in home economics, girls' and women's contest work, canning club, corn club, or agricultural work, and other movements for the advancement of country home life, and shall aid the county superintendent and teachers in giving practical education in home, farm, or garden economics.—From Florida Laws, 1915.

The full effect of the Smith-Hughes Act will not be felt for a number of years, but even in this one year, when organization was still under way, much has been accomplished.

The Ohio State University finds that the new Smith-Hughes law has made it possible to train teachers for this at this department and to establish two practice schools, one in a small village, the other in the city. There are 20 vocational home economics schools in the State that will be supervised by the division of practice teaching in this institution.

STATE SUPERVISION OF HOME ECONOMICS.

At the time of the passage of the Smith-Hughes Act only four States had deemed it desirable to provide a State supervisor of home economics instruction. Since the passage of that act there are nine supervisors of home economics in State departments of public instruction, and in 15 States there is part-time supervision provided by the cooperation of State institutions of higher education and the State superintendent of public instruction.

In some cases the supervision is to be for Smith-Hughes schools only, but in others all home economics departments in public schools will receive this assistance.

The most marked change in elementary and secondary home economics is the breaking down of the rigid division of work which

heretofore has existed between foods and clothing, and a blending together of these and household administration instruction into a unified course in home making.

This, in turn, is creating a demand for public school home economics teachers who have been trained in all of the various lines of home economics instead of specially prepared to instruct in but one phase of the subject. The tendency is toward detailing a teacher to take charge of the whole course for a given class instead of allotting one teacher for sewing, another for cooking, a third for home nursing, and a fourth for personal hygiene or household accounting.

With the increased time for instruction in home economics, toward which school authorities are now tending, and with a more consistent, homogeneous course, a superior type of teaching is possible.

Better elementary instruction is preparing the way for more advanced high-school work, and this in turn is stimulating normal schools, colleges, and universities to base their entrance requirements on high-school home economics instruction and to build their courses on broader and more scientific lines.

The rate of extension of home economics in public schools has been about 1,000 high schools per year. This does not indicate the increased length of periods given the subject.

Usually home economics when established in a school system is required in certain grammar or intermediate grades and is elective for girls in the high school.

The policy advocated by the Bureau of Education has been stated in the bulletin entitled, "The Public School System of San Francisco," in which the following appears:

> No rigid course in home economics can be planned that may be applied to all sections of a large city. All courses in home economics should be adapted to the needs of the communities in which these courses are offered. The end attained should be the same, but the means used should vary with the condition of the neighborhood where the work is given.
>
> From the poorer sections in the cities the children of foreign parentage are often older than the average student in their grades, and since many of them leave school before completing the eighth grade, and since also they are particularly appreciative of the practical phases of education and thereby may be induced to continue in school, it is usually necessary to adjust the home economics course to meet their conditions and to stress the practical phases of the work. In sections where the children usually continue through the elementary grades and enter the high-school courses, a home-economics elementary school course somewhat less intensive may be best adapted to their needs. The latter course may logically lead directly to the high-school courses in the same subject and be so arranged that the one becomes the basis of the other.
>
> Every girl in the city high schools should be required to pursue one year of home economics. This course should be equivalent to a full unit[1] of work and is most effective if it consists of two recitation periods and three double periods

[1] Equivalent to a five-hour course carried through one entire year.

for laboratory each week. This course meets the needs of the students in the courses leading to university entrance, and of those who pursue such vocational courses as are offered in the business high school and trade high schools.

Elective home economics courses should be in every high school except business and similar vocational schools, while specialized vocational home economics courses should be offered in one or more high schools in a large city.

Specially adapted courses of home economics designed to meet the natural limitations of the blind, deaf, or mentally subnormal are an essential unit of all large city school systems. Deaf children become expert in any or all household activities and through these courses may be led to vocational courses affording agreeable occupations and assuring adequate self-support.

These variations and adaptations of courses do not indicate that each teacher is to plan her own work or modify the course given; on the contrary, it means definitely and carefully planned courses which are consistent throughout and which lead the student to a predetermined goal in her training by methods adjusted to social and economic needs.

Classes in food preparation should be established for boys of the sixth, seventh, and eighth grades. If time can not be found for these during the usual school hours, they should be offered at hours convenient for the boys. While these courses are approved for all school systems, they are particularly needed in the cities of the Pacific Coast States, where so many boys go into camps of various kinds during the summer months.

Time.—Elementary school home economics instruction should begin in the fifth grade. Through this grade and the sixth grade the subject should be given four 45-minute periods of student time per week; through the seventh and eighth grades, from seven to nine 45-minute periods per week should be the minimum for home economics instruction. The 45-minute periods should be grouped so that the actual work shall be 90 minutes twice each week for fifth and sixth grade children. It is possible with the usual arrangement of school schedules to arrange two classes of this type before the noon recess and two classes in the afternoon.

The seventh and eighth grade students should report to home economics work in half-day periods twice or three times per week.

Two of the eight periods in the ninth-grade work should be given to recitations, and laboratory classes should be arranged for three double periods each week. Selected groups of children in the fifth, sixth, seventh, and eighth grades can, with advantage, spend from one-third to one-half of their entire school hours in these home economics classes.

High-school girls should be able to elect courses in home economics and related sciences up to one-half of their entire school time.

The foregoing recommendations agree with the more advanced ideas and practices in the stronger school systems of the country.

COUNTY SUPERVISION OF HOME ECONOMICS.

An interesting organization of home economics courses for county work has been effected for Shelby County, Tenn.

Home economics was first introduced into the Shelby County schools in 1913. Now (1917) there are 18 regularly established home economics departments, conducted by trained teachers instructing 950 students. During 1916–17 eleven regular grade teachers also

gave lessons under the direction of the county supervisor, instructing 135 grade children.

For the past two years the home economics courses in the Shelby County schools have been in charge of a county supervisor. The supervisor is the regularly appointed county agent employed by the Department of Agriculture to organize and conduct the girls' club. Her work is so arranged that she gives part time all through the winter to supervision of school work for which she receives compensation from the county board of education. Teachers' meetings are held once a month. All teachers report at the general meeting, after which the home economics teachers meet in special session in the County Home Economics Association, an organization of which they are all members and in which their special problems are discussed. This organization has been responsible for the preparation of a county course of study for the home economics classes in elementary and high schools. The course was adopted in the county two years ago (September, 1916), and has been followed with necessary adaptations since its adoption. The national emergency has made necessary special lessons in food conservation. These have been provided for by the county supervisor through the County Home Economics Association, in which they have been discussed. Special mimeographed instructions have been sent out for these lessons. The association has agreed upon the use of an elementary textbook for the grade classes and an advanced textbook for the high-school classes.

The county supervisor visits the schools once in four or five weeks, observes the lessons, looks over the condition of the laboratory, consults with the home-economics teacher, and acquaints herself with general school conditions. She has also been making a special effort to further the science work in the high schools and offers suggestions and criticisms to those who are teaching science.

The equipment for the home economics laboratories is ample and for the most part well arranged and in good condition. The total equipment, including laboratory desks, stoves, utensils, and machines is valued at $5,600. Five hundred dollars' worth of this equipment has been furnished by community clubs and school activities. In one of the two schools temporary arrangements are soon to give place to improved conditions. A uniform type of desk has been used in the county, but considerable latitude has been permitted in the quantity of equipment and its arrangement in most of the schools. Where funds have been adequate, expense has not been spared to make the equipment both permanent and attractive. In several schools the desks are white enameled and lend a particularly attractive appearance to the room, but in the laboratories more recently furnished a desk with oak finish has been adopted, as it promises to give more satisfactory results in durability. Oil stoves are very generally used

in the schools, for they are in use in the houses of the county. The oil stoves are included in the equipment in sufficient number to give the girls good practice in their management.

The home economics lessons begin in the fifth grade in a few schools and continue through the four years of high school wherever possible. The classes are not large and in most schools do not completely fill the time of the special teacher, hence the special teachers teach various other subjects in the school.

The teaching of food values and methods of food conservation is not limited to the home economics classes. The teachers in the grades give simple lessons to all of the children on the classes of foods and their use in the body. This work is taken up in the various classes with which the subject can be correlated and is supervised by both the county supervisor and the special supervisor of home economics.

The presence of the State Normal School in the county has been of great help in building up the home economics courses in the county schools, as the able teachers in the normal school have given it their support in every way. The household science director in the normal school has acted as president of the County Home Economics Association since its organization.

The organization of the teachers of home economics under the leadership of a county supervisor and the close touch with one another provided through their County Home Economics Association is a specially strong feature of the home economics instruction in the county. The adoption of a course of study and the uniform textbook also serves to give strength to the work. The teachers have been chosen with care. Not only have they had special training, but also they are especially imbued with enthusiasm for their work and have a definite interest in the problem at hand. For the most part they are very young and but recently out of school. The salaries paid make that inevitable. Considerable care has been shown in the selection of the various other subjects which they have been asked to teach. For the most part the subjects assigned them are related to their special line of work, for example, biology, agriculture, and physics. Some are teaching as many as four subjects in addition to home economics. In those schools in which the number of pupils in the home economics classes is small, this seems unavoidable at present.

Hamilton County, Tenn., has a similar arrangement whereby the county agent acts as supervisor of home economics for the county schools. One of the immediate results of this supervision has been the introduction of home economics lessons in the suburban grammar schools of Hamilton County and the development of a uniform course of study.

STATE NORMAL SCHOOLS.

The home economics departments in the State normal schools have been vitally affected by the forces that have been at work during the past two years. As was to have been expected in schools whose students are living on a very narrow margin of income, the attendance has decreased. This decrease in attendance has been appreciable among students taking the special home economics course, but there has been nothing to indicate that the courses have been permanently affected thereby. On the other hand the efforts to give instruction in food conservation to the entire student body in the normal schools have been so successful that several schools report that a general course in food study is to be permanently required of all students in the normal school, men and women alike. Thus a greater number of students is being given instruction relative to the place of home economics in general education, and a wider interest is created in the home economics teaching in the public schools of the country.

The changes that are being wrought in the normal school curriculum through the Smith-Hughes Act have not been in force for a period of sufficient length to have made a well-defined contribution to home economics education, but they promise to do much to further the standardization of courses and methods in those schools which come within scope of the act.

The necessity for conservation in our national life has acted as a spur to normal school teachers and pupils alike, and there has probably never been a year when courses were more alive and work more intensive than during the 12 months just past. Old courses have been altered and new courses have been framed to meet the needs of the country. Community interests have been made the basis for school problems. The home has come to be regarded as the laboratory of the home economics student. Home economics principles have begun to take deep root in daily practice of the individual, the family, and the community. The national emergency has been the means of accelerating the forces that have been operating slowly through many years, bringing to a focus much for which home economics teachers have long been striving. Thus the need for immediate conservation has made possible the placing of greater emphasis on economy in food, clothing, and other phases of living. Courses in fancy cooking and elaborate serving are being abolished in the normal schools. Experimental cooking with a view to the use of proper substitutes has taken the place of these courses. Sewing on expensive materials for personal wear has given place to Red Cross sewing, foreign relief work, or sewing for community needs. Remodeling of old garments and the intelligent care and laundering of the wardrobe have received emphasis. The relation between the school garden and the home

economics department has been recognized by close cooperation. More attention has been given to the body requirements than formerly, and this has resulted in an increased number of courses in dietetics, a more earnest study of the nutritional needs of school children with intelligent planning for school lunch work, and a closer cooperation with other forces in the community working for public health. One of the most valuable of the lessons of the year has been that which has come from placing much of the responsibility for the new phases of the work with the students, securing their cooperation, developing their initiative, and helping them to learn by giving out to others all that has come to them through study and investigation in the laboratory. Thus students in the normal schools have held classes in dietetics in the community; they have passed on, by means of demonstrations or through the local papers, recipes they have worked out; they have arranged food and clothing conservation exhibits and have organized club work among small girls. Several normal schools have added special demonstration courses to prepare their students for this community work.

The following statement in regard to the methods of carrying on practical work in one of the normal schools shows the tendency to make the work contribute to the needs of the school as well as to give the students practical problems:

> We are installing a large school cafeteria, equipped to serve 1,000 at a meal, and we expect to use this to further our food conservation campaign. We are making arrangements so that all food which is used even in experimental work in the laboratories can be sent to the cafeteria, the idea being to minimize any tendency toward eating food during the laboratory time. We expect to use the cafeteria as an educational means of teaching proper food combinations through bulletin work. The girls in elementary dietetics as well as the advanced class will keep a record of the way the students are eating and will give suggestions for wise selections through chapel talks and our school paper.
>
> A number of girls who are leaving this year to teach in high schools are planning to have the first-year high-school domestic science work as it has been generally given, except that food prepared by these girls will be used in the small school cafeteria and the second-year domestic science girls will run this. The second-year girls will be divided into two groups, the one preparing the food, the other managing. The work of these groups will alternate.[1]

Throughout these months of increased activity the normal schools have had occasion to give time to the consideration of the real purpose of their courses in home economics. Recognizing the fact that it is the function of the normal school to prepare teachers for the common schools, they have made a greater effort to give instruction in home economics problems to all elementary and rural teachers and have put less stress on the preparation of special teachers of home economics. Because of the growing tendency throughout the coun-

[1] Report received from State Normal School, Emporia, Kans.

try to require that all high-school teachers hold college degrees, the normal schools are having less demand for teachers of home economics for high schools. One normal school has lengthened its course for special teachers to four years in order to meet the standard of the high school. Another normal school has entirely abolished its course in home economics designed for the preparation of special teachers of the subject, because of the lack of demand for special teachers in the common schools of the State.

Little uniformity has existed in normal school courses, because of their necessary compliance with widely differing local conditions, but the teachers are beginning to feel that they have some problems in common with one another. In one State the normal school teachers of home economics have come together to work out a course of study for the use of the elementary school. They have formed an organization which is the means of bringing all the teachers of the State together and is doing much to raise the standard of home economics teaching.

A conference of home-economics teachers of the State normal schools of New England was held in Boston, Mass., February 16 and 17, 1917, at the call of the commissioner of education. This was the sixth in a series of sectional conferences, the first of which was held November 17, 1915. Groups of normal-school teachers having similar problems have been brought together at each of these conferences. Inasmuch as conditions varied widely, interesting discussions developed, and suggestions were made for possible changes in existing conditions. The following summary of the discussions suggests the nature of the problems which arose:

1. The course given in the normal schools should be planned with a definite purpose in mind. This purpose may be one of the following: (*a*) The preparation of special teachers of home economics for the common schools of the State; (*b*) the preparation of rural teachers so that they may give lessons in home making or conduct a lunch in addition to their work of general teaching; (*c*) the acquaintance of all normal students with the fundamental principles of home economics, that they may recognize its place in the general school curriculum, that they may be able to cooperate intelligently with the special teachers of home economics, and that they may be prepared to undertake the task of home making intelligently.

2. The time allowed for a course should be sufficient to provide adequate training. If special teachers of home economics are to be trained, a special course of at least two years is absolutely essential and a course of three years is preferable. If the lessons are to prepare rural teachers to handle classes in cooking, serving, and home making, a general or survey course of five periods a week for an entire

year should be required. This course should include or be accompanied by observation and practice in the teaching of home making and in the preparation of the school lunch in the rural school. A similar course should be offered the general student.

3. Entrance requirements for the course should be definitely defined. This is particularly necessary to the success of the course for the special teacher. Entrance requirements will necessarily vary according to the development and needs of the particular community. Courses in home making in the grades and high school should be required for entrance just as soon as such courses become general in the community.

4. The short course in home economics should be well balanced and include simple problems in home making, elementary study of foods, cookery, textiles, and serving. It must include both laboratory practice and lecture periods.

COLORED SCHOOLS.

In the colored schools of the South there has been progress in the courses in home making of recent years, because of better-trained teachers, more facilities for work, and a developing system of supervision. The majority of teachers have received preparation in industrial schools, and some have been brought together in county institutes for instruction and have attended summer schools for further study. In some States special courses giving suggestions for lessons in home economics are sent out to the teachers. Most of the States have county and State agents, who keep in touch with the work through personal visits and correspondence. County agents are able women qualified to instruct in industrial lines and to guide the teachers in their work. Since the beginning of the war this work has been given a remarkable impetus. Home gardens have been planted in greatly increased numbers, and large quantities of fruits and vegetables have been canned, dried, and stored for winter use. Industry, thrift, and sanitation in the home have resulted from the work of the supervisors.

While better school buildings and equipment have been provided for the colored schools, the high cost of living has seriously retarded the industrial work in many places, because funds to provide material for work have been inadequate or totally lacking. Many have been the expedients to which ingenious teachers have had to resort to secure materials for the classes in cooking and sewing. School lunches, sales of foods cooked, the keeping of a school garden, the use of flour sacks for fashioning undergarments, making over old clothes, and sewing for the teachers have been practiced in many schools. In a great number of cases teachers have themselves con-

tributed materials for the work. This uncertain system of securing supplies has been a serious detriment to the development of the work, and the condition should be remedied, if effective work is to be done. Notwithstanding the drawbacks under which the industrial teachers have labored in the colored schools, the annual school exhibits which form an important feature of their work have steadily improved in character. The articles made in the sewing classes have become more simple and better adapted to the needs which they are to answer. They show better taste in color and design, a truer economy in the selection of materials, and a higher standard of workmanship. In cooking exhibits the chief stress has been put on the canning and drying of food products, in order to emphasize conservation and economy. Fancy cooking and candy making are giving place to an honest presentation of the homely needs of daily life. As these exhibits are serving to set standards for the community and to convince the people of the value of the school work, they can well be regarded as a factor in community development. In those schools in which boarding departments are maintained an improvement in the standard of living is noted both in the care of the building and in the meals served. This is felt to have resulted very directly from the teaching of home economics that has been done throughout the South.

HOME ECONOMICS IN COLLEGES AND UNIVERSITIES.

The report of development of home economics in the University of Illinois during the past two years, 1916–1918, may be considered typical of the best home economics departments of the country. It is as follows:

> The regular work of the department has been marked by an increase in attendance, by an emphasis upon food work, owing to war conditions and emphasis upon extension work because of the Smith-Lever and the war emergency funds. The development of the food work has been along two lines: *For the undergraduate student:* Emphasis upon what might be termed practical dietetics, so that the students could interpret to the general public scientific feeding in terms of daily life. An attempt to take this direct to the university public in the lunch room, through charts and suggestions about selection of food. Second, experimental work in food substitutes. *For the graduate student:* The emphasis was upon the problems of nutrition, including the feeding of the child as well as the adult. Third, owing to the increased costs of living, emphasis has been put on economics of the family and through cooperation with another department of the agricultural college, some studies are being made in the cost of living. Fourth, a special problems course has been changed into a course designed to give extension workers a broader conception of extension work and its significance in the development of family and community living.
>
> The university has for many years retained a practice apartment as a laboratory for household management. The passage of the Smith-Hughes Act has made

it necessary to enlarge those laboratory facilities, and arrangements have been made with the university authorities for the use of its university cooperative houses for the teacher training in Smith-Hughes.

The practice work in home economics for teachers has been conducted in connection with the Champaign and Urbana schools for several years. These schools are typical of the schools into which the university graduates go as teachers and afford excellent training for the conditions as they exist in Illinois. The Smith-Hughes bill occasioned a readjustment and an enlargement of the work already being conducted, two additional instructors and a special division of subject matter and method being provided for the teacher training work in home economics. Two new courses have been added, a course in economics of the family group and a course in interior decoration.

In 1916 a series of five lectures was provided to reach the non home economics women of the university and also the women of the community. These lectures were given by heads of various university departments, and presented phases of production, conservation, transportation, and distribution of food supplies and food products.

A two weeks' intensive course in canning, preserving, and drying was given, open to members of home economics classes who volunteered for summer service in their home communities.

A similar course was given for nonuniversity women.

Red Cross classes were given in nursing, dietetics, and surgical dressings.

Special classes were provided in institutional management for serving large groups of people and in conducting lunch rooms, etc., on a war basis.

Special courses were given for fraternities, boarding-house keepers, commissaries, etc.

Two special courses were conducted as supervised by Dean Olin Templin for non home economics women.

No courses have been offered for men students here, but all the commissaries of the fraternities and sororities were invited to special lectures adapted to their needs, and in many cases personal assistance was given to the men commissaries.

Introduction of hot noonday lunch in many rural schools has been emphasized. The work in the Urbana and Champaign schools is under the direction of the department of education of the university and under the supervision of specially trained teachers for that work, and some important developments are expected in the present year.

There has been no State supervisor of home economics in connection with the State superintendent of public instruction until the passing of the Smith-Hughes Act. There is now a woman who passes upon the merits of the high schools applying for home economics under the Smith-Hughes Act, and it is expected that the university will have its supervisor of teacher training follow up the work of its students after they leave the university. The State leader in home economics demonstration unites the work of the States Relations Service and the extension division of home economics in the University of Illinois.

The most important State legislation is an act providing for the proper lighting, heating, and ventilation of rural schools, also proper water supply and sewage disposal system. Suggested provision to be met on penalty of forfeiting the district's share of the public school fund. With the State demanding proper sanitary conditions for children at school, we have splendid basis for persuading the home to use equal care in promoting child welfare.

The effect of the war upon home economics instructions is indicated by—

(*a*) Increased enrollment in courses offered at colleges and normals and a readjustment of courses to suit specific war needs.

(*b*) Increased demand for extension lectures and demonstrations.

(*c*) The accrediting of home economics (for one or two entrance credits) from 195 of the 239 accredited high schools of the State, thereby giving recognition to this work of the secondary schools.

(*d*) The employment in 14 counties of home demonstration agents.

(*e*) The cooperation of Council of Defense agencies in the city and country alike with the State Relations Service for food conservation.

Aside from the changed emphasis demanded by war conditions, the attempt is being made to put the extension teaching in home economics upon a better educational basis. First, by the classification of the material to be taught along distinct lines of food, clothing, equipment, family accounts, public health; and second, by better organization and presentation of material along these lines.

The home economics teachers' branch of the Illinois High-School Conference has established uniform courses for both elementary and high schools for Illinois.

EFFECT OF WAR ON COLLEGE COURSES.

Certain movements were common to all colleges. Many institutions either made direct use of the food administration's courses of study or blended the substance of these into their established courses. Almost every college placed especial stress on food preservation as well as upon food conservation. Red Cross sewing was done both in and outside of regular clothing classes, while special instruction was given in surgical dressings, first aid, and knitting. Almost all colleges opened special classes to local townswomen.

In Teachers College, Columbia University, the school of household arts has made the following adjustments and advancements in teaching the various courses in home economics:

Establishment of practice houses.—During the last year a practice apartment has been in operation in a nearby house, practically under the college roof. It is self supporting. The apartment is occupied by six students, five of them majoring in household administration, and one, the director of the group, majoring as a teacher of vocational homemaking. The students do all the work of the apartment and receive eight points of college credit for satisfactory performance of duties. The period of occupancy is for one term of about 17 weeks. The schedule is so arranged that each student has opportunity to serve three weeks in each of the several capacities, of cook, housekeeper, waitress, hostess, etc.

It is hoped to increase the number of practice houses as rapidly as there is demand, for the purpose of offering managerial practice to teachers in training for vocational homemaking and home practice to young students with only laboratory experience. In addition it is hoped to demonstrate the possibility of a better system of housing for many students who can not be accommodated in the college dormitories.

There has been no marked reorganization of the department of household arts education during the past few years, with the exception of the establishment of the committee basis in the staff, the chairmanship passing from one member of the staff to another each year.

As indicated elsewhere in the report, special provision has been made for the training of extension workers and for teachers of vocational homemaking. Furthermore, as a means of extending the experience of the student teachers and of combining training and service, a group of students who have been teachers before entering Teachers College have volunteered their services in the home service section of the American Red Cross as food advisers in families where needed.

Opportunities for practice teaching have opened in one of the New York City high schools, and it is hoped that the privilege may be extended.

An experimental school lunchroom has been opened in the elementary practice school, providing simple school lunchroom experience for student teachers as a phase of their practice teaching.

A phase of work introduced during 1917–18 was the opportunity for juniors to become acquainted with the practice teaching problem. They serve as assistants to the seniors in their teaching, and meet for conference five times during the semester with their supervisor. This has proved to be a very helpful basis for the actual practice teaching of the senior year.

The teaching staff holds weekly conferences to which, from time to time, are invited members of the faculty of Teachers College, graduate students, and others who present in an informal way certain phases of educational philosophy, sociology, and methods which they have specially developed.

New graduate courses.—1. Graduate courses in household arts education practice are so arranged that the piece of individual work done by each student is a problem in itself and in a certain sense always a new course.

2. Education 294B, vocation for girls and women, opens up the field of various occupations for girls and women related to the household arts as well as to other avenues of work.

3. During the last year two new majors have been offered in household arts education—(1) Teaching vocational homemaking; (2) training for home demonstration agents in rural communities.

The following are offered as the most outstanding developments in elementary and secondary schools in relation to home economics education:

(1) Unification of all phases of home economics work under one course, when for general education—not "domestic science" and "domestic art" separately.
(2) The organization of courses under the "unit" scheme.
(3) The use of the problem-project method of instruction and organization of courses.
(4) The introduction of projects for community and international service in the work in sewing.
(5) The use of the school lunch room as a means of utilizing food products, and of furnishing experience in family quantity cooking; also as a means of teaching table service and etiquette.
(6) Socialization of the home economics course of study by every possible means (e. g., preparation of food by W. I. H. S. during influenza epidemic).
(7) Encouraging the social instincts of the girls by utilizing them in preparing for social affairs of the school.
(8) Providing work in home economics suited to their needs for boys.
(9) Vocational home-making courses in the high school, for high-school girls and also for women who wish to come to the school for special training along this line.

State supervision of home economics.—While Teachers College does not conduct supervision of State instruction, it prepares women for this work. The course "Education 137–138, Supervision of Household Arts in Schools," aims to open up the field of State and school supervision of the home economics studies. Since the operation of the Smith-Hughes law the demand has increased for State leaders of home economics under this bill as well as for supervision and criticism of practice teaching in home economics studies in normal schools and colleges. This course, with others in general supervision of school instruction, aims to prepare for State supervision of home economics.

Effect of the war on the interest in home economics instruction.—To meet the demands for education along the lines of home economics, various courses of a popular nature were given during 10 days in the latter part of May in the form of emergency courses. These were largely attended, and it is significant of the increasing interest in home economics instruction that large numbers of the registrants for these special courses were from the school of education as well as from the school of household arts.

The character of the regular course offered has been changed considerably to meet the new demands and interests of the students and the needs of the times. Experimentation with various substitutes for the foods needing strict conservation with a view to issuing reliable recipes for general use was carried on in the foods and cookery department. The need for a greater number of methods of food conservation was met by the organization of new courses in canning, preserving, and drying of foods. Conservation and renovation problems were also undertaken in the textile and laundry departments and met with a respose that demonstrated the interest and the need.

The interests in fields of study have been changed and broadened also by war demands, in that the need for people qualified to fill administrative positions as dietitians and institutional administrators of various types has been so pressing that many who had heretofore looked forward to teaching have changed either temporarily or permanently into these other fields of work.

Another effect has been apparently to increase registration in home economics departments of the college. Contrary to expectation, the home economics classes have held their own in numbers or have even increased in enrollment.

New features in home economics extension work.—Three new features characterize the preparation of women for home economics extension service:

(1) Beginning 1918, Teachers College offers a major in household arts for rural extension teachers. This major is open to women especially qualified for the work. The special entrance requirement is two years' study in an approved college. A program of studies, 54 points, may be chosen from the fields of foods and cookery, nutrition, clothing and textiles, chemistry, bacteriology, hygiene, administration, and nursing. In addition, courses in education and rural sociology will be required. The completion of this major entitles the student to a regular Teachers College diploma.

(2) The second new feature for the year is the opportunity of investigating rural conditions and getting practical experience in connection with the work of the home demonstration agent through direct participation in the field. Through special arrangement with the department of rural education of Teachers College and Warren and Huntington Counties, N. J., household arts students who desire it are given this opportunity.

(3) The school of practical arts of Teachers College has planned a midwinter session of six weeks for the benefit of home demonstration agents who care to avail themselves of the opportunity for further training.

The department of institution administration of Teachers College, Columbia University, with increased numbers of students has arranged the work this year under three specialized heads. The groups preparing for cafeteria management are having special work, both in the classroom and of a practical nature in the field under direction of Miss Florence La Ganke, formerly in charge of the cafeteria at Western Reserve University, Cleveland. This practical work is especially emphasized this year, for unusual opportunities have been afforded for students, not only in the cafeteria of the Horace Mann School for regular work, but also in connection with the college commons for the feeding of the Students' Army Training Corps. Besides this, as many former Teachers College students are in charge of cafeterias in New York City—in lunch rooms for employees in banks and department stores, in cafeterias for business women, etc.—the experience has been a varied one which our students have been able to obtain.

A special group, training to be dietitians, have their practical work under the direction of Miss Eleanor Wells, president of the American Dietetic Association, New York City. Because of the great demand for dietitians, this side of the work has been developed this year, and for the first time we have been able to have the full time of a special dietitian to supervise the field work in hospitals. Through Miss Wells's acquaintance with the dietitian problems here in the city, it has been possible to give our students practice experience to a greater degree than before. A special leaflet is issued describing this work.

The third group—that of the managers of dormitories, clubs, etc.—has been put under the direct charge of Miss Katherine Fisher, who came to Teachers College last year from Macdonald College, Quebec. Again, with this group the practice work is being emphasized in connection with dormitories, Y. W. C. A.'s, and clubs in the vicinity. A close link is being worked out between managers of boarding halls and this department for further opportunity for practice work.

Following this practice work, in connection with their regular class work, students are required in every case to give a stated period of time in the field following the period of training.

The demand for institution workers has never been so great as during this past year; this includes not only the specialized fields of dietitians for cantonment service and also over-seas and for cafeteria and hostess work in connections with camps, but also an unusual demand for organization of departments of institution administration.

In connection with household administration a housewife's bureau for helps in housekeeping (other than food) has been organized. The bureau has special exhibits, posters, clippings, shelf of suggested readings, equipment, leaflets, etc., pertaining to the special subject of the week. This work is under the supervision of a graduate student who cooperates with the different members of the household administration department. Special meetings are scheduled during the week which housewives may attend, and many outside lecturers are called in to talk upon special topics.

The final summary of the work of this bureau will be suggestive for teachers in other communities.

Special courses for home makers are being presented in connection with conservation problems.

Simmons College reports as follows:

The war has made new demands on the department of household economics at Simmons College, as it has on technical departments everywhere. Existing

courses in cookery, dietetics, and sewing have been modified to suit the times; advanced specialized electives have been introduced; extension courses have been increased; lectures and demonstrations on food conservation have been given for students in other schools and for the public; and members of the staff have done much advisory work on public committees and in editing various publications.

At the Florida State College for Women special courses in home economics have been given continually, since the declaration of war, for all non home economics students who wish to take lessons in food conservation and production. Besides this, in September, 1917, a conservation short course was given to the women of the State, and representatives from 35 of the 54 counties were present. In June, 1918, a short course for country girls was held. Forty-two girls, representing as many counties, were present. Since there are only 54 counties in the State, these girls have been the means of reaching communities in every section of the State. In September, 1918, a college for women in war work, called the War Work College for Women, was held here at the same time with the meeting of the home demonstration agents.

From Tampa comes the following opinion:

The war, particularly through the establishment of the Food Administration, with the consequent regulations, has added a big element of interest to all home economics instruction, and has generally increased the respect and esteem of the public in general for the work.

University of Washington:

Practically all home economics courses were modified to meet war needs. Specific courses are:

1. Conservation of food.
2. Making over of clothing.
3. Remodeling of hats.
4. Food service. (This course is given for men from the naval training camp, located on the campus.)
5. Nursing. (This is given to the hospital corps of the Navy.)

A course for nurses' aids was given to 98 students, in which the home economics department cooperated.

A five-credit course in food conservation was given in the spring of 1918 throughout one-quarter to 130 senior women who were not majors in home economics. One quarter of the year 1917–18 was devoted to the remodeling of garments in the dressmaking class.

In Minnesota the war has tended to increase the interest in certain lines of home economics instruction and to divert interest from other lines. Interest in work which leads directly to war work, as for example dietetics work, work as assistants in laboratories, and extension work, has been increased. The interest in general home economics where no vocation other than that of home making is involved has decreased slightly.

At the Oregon Agricultural College the following courses were organized and maintained:

Food Administration course in "Food and the War," course of 4 lessons for fraternity cooks, and a course of 10 lessons for the housewives on food conservation.

Regular courses in camp cookery and cookery for men who do their own housekeeping. Special course for those engaged in military training.

Home economics department gave assistance in working out food conservation rules, to which all fraternities, boarding houses, etc., voluntarily subscribed.

Miss Marlatt, of the University of Wisconsin, states:

The effect of the war upon the interest in home economics can not be measured. Owing to the emergency home demonstration agents, the training of volunteer classes and the work of the Junior Red Cross, the interest in home economics teaching has been very greatly stimulated.

The College of the City of New York offered extension courses in "Food in War Time." This was much similar to ordinary lecture courses on foods and nutrition, except that all food facts were related to war conditions. Among those who presented these courses were Miss Laura Cauble, Mr. Robert McDowell Allen, Dr. Lucius P. Brown, Dr. H. C. Sherman, and Miss Mary G. McCormick.

PRACTICE HOMES.

That the necessity existed of more closely alining home economics teaching with actual home conditions has been recognized for many years. Various methods have been attempted to attain this result, the most promising of which has been the use of an ordinary residence or apartment as a practice home.

It has been difficult to convince college and university authorities that a practice home was an essential feature of home economics equipment, so long have they thought of college work being carried on in laboratories.

Of recent years there has been an increased tendency to provide practice homes for senior students in colleges, and these have also been furnished by some school boards or philanthropic agencies in certain progressive cities.

The requirement by the Federal Board of Vocational Education that institutions receiving teacher training money should establish these practice homes caused an increased interest in them, as the following reports indicate:

At Lewis Institute, Chicago, the course in household management was much improved by the addition of a practice apartment. This was built of wall-board in the corner of the institute attic, but the classes, with paint brushes and needles, transformed it into a home-like place where activities of all kinds take place; even classes of

children come in to be taught "home making" by the practice teachers in the senior class.

At Ohio State University the department of home economics moved into a large, new, commodious building in September, 1916. This gave the opportunity for further development. A practice house in connection with the household management course will be established in an apartment in the building this year.

A practice home has been in use at the University of Missouri since June, 1918. The students remain in the home from 8 to 16 weeks, and there are from 7 to 9 girls living in it at a time. An additional practice home was opened at Cornell University in 1917; the first one has been in existence four years.

In the Kansas State Agricultural College a house has been leased by the department of domestic science, which will accommodate 14 students and a teacher. This house is to serve as a laboratory for the teaching of household management to students who wish to qualify to teach home economics under the requirements of the Smith-Hughes Act. The work of the home is to be done under the supervision of the teacher, by the students. The length of time for each group is not definitely determined, but will probably be one semester. Cost of maintenance to be prorated among the students.

At the Florida State College for Women they have established a practice house. All graduates live in the cottage for a minimum of eight weeks during the year. The girls live in groups of six at a time. Poultry and gardening are carried on by the practice house family. The work is under the supervision of the regular instructor, Miss Lucy Kimball. The expenses of the cottage last year did not exceed 30 cents per person per day, exclusive of rent.

Temple University, in Philadelphia, will use the university dormitories in lieu of a practice house until it is deemed advisable to establish a separate residence for this practice work.

Milwaukee-Downer also uses the dormitories in place of a separate practice house.

A practice house will this year be established at New Hampshire Agricultural College and one will also be established at the Connecticut Agricultural College.

The University of Nevada enjoyed the use of the president's house as a practice house.

The Agricultural College of Oklahoma will have a practice house this fall.

The home of the president of Lincoln College, Lincoln, Ill., will be hereafter used as a practice house.

At the Oregon Agricultural College a practice house was established in September, 1916. It is entirely self-supporting. It houses 11 girls and 1 faculty woman.

A new practice house has been given to the University of Indiana.

A practice apartment was in use in 1917–18 at the University of South Dakota, and this arrangement will continue until the State appropriates money for a practice house.

A friend of Hood College, at Frederick, Md., made a liberal donation for a practice house for the home economics women of that school. This is the first practice house in Maryland and marks an epoch in the teaching of home economics in the State. The home is modern in every respect, is comfortably furnished and affords an opportunity for all senior home economics students to have actual experience in the operation of a home.

The practice house at the University of Wisconsin has been organized since 1910. This year they report as follows:

> We are now erecting a model farm house which will be used as a practice laboratory in the course in dietetics and household management so that we will be able to give longer periods in the cottage to the students in the household management courses.

Oxford College, Oxford, Ohio, has maintained a practice cottage for some years.

Pratt Institute has long maintained a house in which students can try out the principles of household administration.

In connection with the practice house at the Mississippi Industrial Institute and College at Columbus, there was a practical home dairy. A cow was kept to supply needed milk and to give an opportunity to teach the proper care and handling of milk. Cream was secured from the local creamery, and each girl had experience in making 20 pounds of butter.

PRACTICAL APPLICATION OF FOOD COURSES IN THE MANAGEMENT OF LUNCH ROOMS AND CAFETERIAS, AND IN COOPERATING WITH THE FRATERNITIES, DORMITORIES, AND BOARDING HOUSES.

Simmons College reports as follows:

> We have excellent cooperation between the teaching staff and the dormitory administration. Our house superintendent is a member of the faculty and in charge of all work in institutional management. Our policy continues to be to admit for institutional work only mature women.

In the Florida State College for Women the dormitory is in charge of a trained dietitian who is a member of the faculty of the school of home economics doing some teaching in nutrition.

Agricultural College of Washington states:

> Through our division of institutional management the student halls are operated under the direction of the college of home economics. The fraternity houses gave active cooperation and have frequent meetings of their house managers with the head of the division of institutional management. Most of the sorority houses are now being operated indirectly by students who are house

members and who have elected that course of study. This last year we have established a cafeteria. The head of the division of institutional management is also in charge of the special mess for the soldiers camp now stationed at the State college.

The home economics department of the Ohio State University reports that several seniors who registered in proseminary course have cooperated with boarding houses, fraternity houses, and sorority houses, in managing the food, as well as the complete budget. A large manufacturing plant asked for assistance in reorganizing their welfare lunchroom. This was worked out, and a trained worker placed in charge. The lunchroom will be used as a laboratory to some extent for students taking institutional work.

It is with the idea to develop greater cooperation between the department and the college cafeteria and fraternity and sorority houses at the agricultural college of Utah that two new members of the staff have been chosen for their experience in cafeteria and institutional work and a complete and up-to-date kitchen for training students in cafeteria and institutional management has been installed.

During the past year a woman for institutional work has been added to the faculty of the home economics department in the Ohio State University, and a course will be developed with laboratory work in a new cafeteria.

In the *Kansas State Agricultural College* the institutional work has greatly developed during the biennium. The cafeteria, which was equipped and opened in 1915 for the purpose of feeding the students and serving as a laboratory to teach institutional management, has been highly successful. It has paid all expenses, including director's salary, and has had a balance to apply toward additional equipment. Strong courses in institutional management and institutional cookery have been developed. A lunchroom management course of one year has been added.

The home economics department of the *University of Washington* has complete charge of the commissary department and the housekeeping of the dormitories, which accommodate 100 students. Frequent advice and help is asked for and given to the fraternity and sorority houses. A university commons is housed in the home economics building and is an activity of that department. It affords opportunity for practice work for students in institutional management.

The department is called upon to act in an advisory capacity in the management of fraternity houses.

During the year 1917–18 the department of home economics in the *Agricultural College of Colorado* operated a college-girls' boarding club in which 30 students were served, at a flat rate of $16 per month. This amount covered not alone cost of materials but rental, heating and lighting of the house, service, breakage and depreciation of 10 per cent in furniture and furnishings. In addition there were supplied to the resident and faculty members and the working housekeeper their rooms. Canned fruits, jellies, jams, and relishes were supplied to the club at cost of raw material. The department of home economics found this to be a very practical and helpful demonstration in house management.

At the *University of Wisconsin* the director of the university commons and her assistants are members of the home economics department. Practically all the sororities have a home economics student as their steward. The fraternities have occasionally asked help in the selection and buying of food.

At *Milwaukee-Downer* most of the practical cookery work is done for the college dormitories or cafeteria. All students of the college home economics department are given opportunity to work in the college cafeteria.

At the *University of California* conferences are held by the head of the home economics division each term with the Pan-Hellenic body, made up of club managers, and with the approved boarding-house keepers. There is no official machinery, however, connecting the division with any eating places. It is proposed during the coming term to place the student cafeteria on the campus in charge of a committee of women students under the leadership of a graduate of the division, who shall be given the management of the cafeteria as an economic problem for credit. It is believed that the running of such an establishment offers degree credit field only for one student at a time.

At *De Pauw University* the home economics department and dormitory system are very closely related, in that the head of the department who does part-time teaching is also director of the three halls, which include the housekeeping, boarding, planning of meals, buying, mangement of employees, records, etc. In other words, home economics principles are being carried out in the college dormitories, and the plan has been quite successful.

In *Lewis Institute* the institutional management classes were benefited by the installation of a small bakery and laundry. These served the double purpose of supplying the lunch rooms, dormitories, etc., with baked products and clean linen, respectively, and in giving these classes extra experience in their chosen field.

The arrival of a training detachment of 360 soldiers at Lewis Institute turned the gymnasium into a mess hall; the cafeteria kitchen adjoining was quickly augmented with extra equipment and more employees, and most of the institutional students took an active part in assisting in the work and management. The summer school has given a "canteen course" with practice work here and in the lunch rooms. New ranges, mixing machines, vegetable peeler, etc., have been material helpers and have given these classes experience in their manipulation and uses.

The *Temple University* lunch room has been placed under the supervision of the household arts department: (1) Some service hired; (2) some cookery and all management, and some waitress duties, done by pupils under supervision of instructor.

The results of first year's operation in cost are: All costs cleared, including rental of space, provision for depreciation, of equipment, gas, etc. Salary of instructor not included, as this is considered a legitimate instruction cost.

There has been greater opportunity given for practice teaching with work more closely supervised, and lunch room management course has been introduced.

SMITH-LEVER EXTENSION WORK.

The Secretary of Agriculture has expressed the opinion that the extension service rendered under the Smith-Lever Act is the largest educational work in the United States.

New phases of extension teaching in *Ohio:*

Home demonstration work established September, 1917. Now have 12 county agents and 7 city agents.

Teaching by means of illustrated lecture and demonstration from an automobile which toured part of the State in the interest of poultry and egg production.

Regular members of extension force assigned to Chautauqua tours to give food conservation demonstrations.

Demonstrations in homes of foreigners, often non-English-speaking, is a form of teaching done by urban home demonstration agents.

Teaching food facts by means of games or playlets is a method newly tried by urban agents in work with large groups of school children.

The exhibit method of teaching has been used by home demonstration agents.

The teaching of the extension service of the home economics department has been considerably extended by the enlistment of home economics trained people all over the State who signify their willingness to give talks and demonstrations in their communities. They give their service, and the people for whom the demonstration is given pay expenses of supplies used.

In *Nebraska* the county home demonstration agents are placed on a permanent basis, each county paying one-half of the total expense. The first work of each agent is to establish a county homemakers' association comprised of a number of local associations sufficient to reach all of the women in the county. These local associations meet monthly and during the first year the agent meets with them or trains leaders for such meetings as she can not attend in person. During the past year the conservation of food has been the main topic, with some attention devoted to clothing conservation. Great interest has been displayed in food values. The county food administrators of the State are very ardent supporters of home demonstration agents because they find that in those counties where there are home demonstration agents the spirit of the women and their attitude toward food conservation is much better than in those counties where they have no such agents. A large number of volunteer demonstrators have been trained the past year by the agents for the

purpose of giving sugar and wheat conservation demonstrations. Training classes for volunteer workers are usually held in domestic science laboratories and are conducted for from one to three days. These demonstrators cooperate with the food administrators and with the women's committees of the county councils of defense, giving demonstrations before organized groups and at the grocery stores.

Another piece of extension work has been the giving of instructions in canning, drying, and egg preservation. In 1917, 2,040 volunteer demonstrators were trained at 25 two-day canning schools. These schools were held in 33 of the larger towns, utilizing domestic science laboratories in high schools. They were conducted by members of the staff of the home economics department of the College of Agriculture. Two of these schools, with a total attendance of 350, were held at the University of Nebraska for the special benefit of the students of the arts college. In 1918 a particular effort was made to reach the rural districts and the more sparsely settled portions of the State. During this season 479 demonstrations have been held by representatives of the extension and home economics department in the 70 counties not reached by home demonstration agents.

The past year has marked the beginning of city home demonstration work. In the city of Omaha the agent has appointed a chairman for every school district and these chairmen have in turn divided their districts into smaller units, appointing a representative in each unit. These unit representatives are agencies for the distribution of literature, for the advertising of meetings, and for the carrying on of the supervision of projects in their respective units. In the city of Lincoln the home demonstration agent has been the only agency attempting to reach the foreign population in the teaching of the use of substitutes. This she has accomplished by training volunteer workers and by utilizing volunteer demonstrators residing in the city who have had college training in home economics. The municipal canning kitchen established in Lincoln in June, 1918, has been very successful and very well received.

New phases of extension teaching in home economics in *Wisconsin* have been brought about through the work of the emergency home demonstration agents. In this State the leader has inaugurated a method of training mature housewives as volunteer teachers in the newer use of the war breads. This group of women in the town were first taught methods and trained members to do demonstrations. They then called meetings and trained members of the ward or block in methods of making war breads. They also organized the townships and rural school districts, going out in automobile squads to do the work throughout the county. These workers cooperated with the emergency home demonstration agents wherever there was one located in the county.

Texas Agricultural College, which does not offer courses in home economics, reports the following concerning the extension service:

Through our 50 county home demonstration agents, 10 urban agents, and 10 negro home demonstration agents, we have done work in all lines of food preservation and food conservation. I can not give a complete summary of this work until after November 1, when our annual report is made.

The *Agricultural College of Utah* sends in the following report:

With respect to new phases of work in our extension division the following are noted as the most important:

The appointment of 10 new home demonstrators, and the connection of all such home economic workers with the community centers.

A great increase in the work in urban districts. For example, two cities of over 25,000 have appointed demonstrators, and all the larger towns are organizing community centers, where not alone are demonstrations given in war cookery and dress economics, but in the right care of child life.

A very valuable bulletin was issued from the university in the spring on the care of infants, and one on the care of childhood and adolescence is now in the printer's hands.

The formation of the family type of farm bureaus all through the State.

The organization of local women into training classes under trained supervision.

These will serve to demonstrate the effect of the war upon the interests in home economics instruction.

In *Minnesota* the placing of home demonstration agents in the State was a new development of the extension teaching in home economics.

The *University of Wisconsin* offered an extension course for home economics workers which is described as follows:

A lecture and laboratory course dealing with the field of extension teaching; discussions on the organization of material and problems of cooperation, combined with laboratory practice in preparation of material for exhibits; lectures and demonstrations form a part of the course.

NEW PHASES OF HOME ECONOMICS.

There has come a broader vision of what home economics may mean among those who have the organization and administration of home economics departments.

At the *University of the State of Washington* this new work was inaugurated:

In 1917–18 a nurses course was added. It is now provided that students may take three years at the university followed by two years in a nurses training school and graduate at the end of five years as a registered nurse with a bachelor of science degree. The training course must be approved by the university faculty.

In the *Agricultural College of Colorado:*

Beginning with July 1, 1917, a budget was set aside for the initiation of experiment station work in home economics. The total allowance for the two

years beginning July 1, 1917, is $3,500. This is to provide for salary, equipment of experimental laboratory, and supplies. In addition to that procured out of the budget named, some equipment has been loaned by other departments. Projects outlined include experimental cookery and research.

From the *University of Nebraska* it is reported that:

During 1917–18 the cadetting in the Lincoln schools of the students in the special methods course was developed under the joint supervision of a member of the staff of the home economics department of the university and the city supervisor. The usual difficulties were encountered, but their recognition has led to the formulation of a plan of cooperation which it is believed will be workable. This plan will be put in operation under the direction of an assistant professor in the university in charge of home economics education.

University of Wisconsin:

No better illustration of the new trend of home economics can be found than the following excerpt from the report of the home economics department of the University of Wisconsin:

The need for the best trained people that can be secured for the nursing service was recognized by the State legislature in its special session last February, at which time they passed a bill granting at least nine months' credit to college graduates who had taken approved laboratory courses during their college work. Detailed courses in biology and especially in home economics are recognized in the understanding of the law. The first group of university graduates began their work July 1, 1918. The university courses in home economics and medicine are cooperating in this work, so that the time required for fulfilling the requirements for the degrees of registered nurse will be made as short as possible. The preliminary courses especially designed for this course are those required in the general course in home economics.

To the student who elects this major the opportunity will be given to complete the requirements for the bachelor of science degree and acquire the nurse's certificate in less than the four college and two hospital years. This can be done by the student taking summer school work in addition to the regular work in the university year. With the regulation age limit for those entering the nursing profession this will allow the high-school girl to enter the university and prepare herself for the work of hospital nurse, public health nurse, social welfare nurse, or industrial nurse at practically the same age as she would have done if she had entered the three-year nursing course after graduating from the high school and reaching the age of 19.

A five-year nurses' course will be given at *Ohio State University*, and will parallel closely the first three years of the curriculum in home economics.

The *University of Iowa* will offer an intensive training course for women to become nurses on much the same plan as Vassar, except that the Iowa training course will be open also for the training of women who have had only two or three years of college work. The Red Cross has approved the program, and Mrs. Blodgett, who recently visited Iowa City, representing the Vassar camp, was enthusiastic over it. There is a prospect that the overflow from Vassar may be sent to Iowa. In Iowa there will be the advantage of the finest hospitals and equipment of the University School of Medicine, which, it will be remembered, ranks A by the standards of the American Medical Association.

At *Sioux Falls College* courses in food conservation were offered to men students and were appreciated by them.

In the *University of Nebraska* itinerant teacher training was begun in 1918, and 29 schools were visited. The work was largely in the nature of a survey, with the aim of determining what assistance could be given in developing home economics courses. A great variety in the time and content of courses and the adequacy of equipment was found. The attitude of both superintendent and teachers proved the value of this work, and it will be expanded in the future.

In *Mills College, California*, the course in house sanitation has been turned over to the physics department and will be called applied physics. A new course in weaving on a hand loom is now offered in order to train women as teachers in reconstruction work among the soldiers.

The *University of Wisconsin* offers the following among a number of new courses in the home economics department:

Reconstruction course. I; 5 cr. Teacher training course in hand crafts used in reconstruction camps, sanitariums, and hospitals.

(*a*) *Applied design.* 3 cr. Designs suitable to the special hand crafts to be taught. Lectures M. W. 11. Laboratory M. W. 8–10.

(*b*) *Hand crafts.* 2 cr. Practical problems in dyeing, netting, knitting, weaving, setting up a hand loom, pattern weaves, all-over hand border patterns; use of knitting machines and other craft appliances. Laboratory 8–10 F. S. 1:30–3:30 F.

At the *University of Indiana* a new graduate course was given in the care, management, and training of children below school age. One also on women and children in industry was offered.

The home economics department of the *Oregon Agricultural College* has these divisions: Household science, household art, and household administration. There is also an advanced course in textiles and a survey course in home economics. Institutional management which involves the managing of a boarding house which will accommodate 50 people is also organized.

In the *University of Minnesota* a course in commercial clothing manufacture was established last year. This course deals with the trade point of view in clothing construction problems. It is not a trade course, however, but is designed for those specializing in textiles and clothing work to increase speed and skill, to give insight into some of the economic problems of dressmaking work.

At the University of Minnesota a project work of "follow-up" teaching or training of teachers in service was carried out and will be continued this year. This work was done with the graduates of the previous year who were teaching in the State of Minnesota. The results have been of considerable moment with reference to assistance to young women in their teaching positions and help

for the teacher training section through a clearer understanding of the problems in the State.

At *Pratt Institute*, in the summer of 1917, the school ran the mess for 120 signal service corps men in training, at the same time instructing 20 of the men as cooks. The lunchroom was used, with some separate lessons in the class kitchens. Summer work for students of Pratt Institute was changed so as to require the planning, purchasing, preparation, and serving of three meals a day for 14 consecutive days for a family of not less than four.

Simmons College reports:

There is an increased desire on the part of students for greater specialization. This makes itself felt not so much by way of direct expression from the students as by the eagerness with which new specialized electives are chosen and the reluctance with which the conventional group of teaching electives is accepted. We now have fairly well organized groups of electives for vocations other than teaching, one leading to lunchroom or hospital work, one to extension work, and one to craft work with the handicapped. We are hoping to develop immediately work directed toward social service, such as the food work of children's clinics. Another field of work attractive to our home-economics students is public health work. Apparently our general home-economics training constitutes an excellent background for this work.

CHILD WELFARE COURSES.

The indications all point to a manifestation of interest in child welfare by the establishment of child welfare courses or lines of work in home economics divisions. Infant feeding has frequently been considered, but the feeding of the pre-school age child, the elementary school child, and the youth during the adolescent period has not been especially treated. Moreover, child welfare will not longer be interpreted to mean merely child feeding. Physical, mental, moral, and industrial welfare will hereafter be considered to be of equal interest.

Home economists will agree with the following statement from an address given by Miss Rita Oldham, president of the Association of Head Mistresses of England:

Nevertheless, of all the contributions to civilization made by women they must set highest motherhood and the nurture of their own children, which the majority of women would desire and consider the first claim upon them during a part of their lives.

What is the application? This: That in our schools the bulk of those they trained are consciously or unconsciously going forward to lives as wives and mothers. Is it not time that they set themselves to consider whether difference of function in the mass should not carry with it more differentiation of education than at present exists? Not for one moment should the education of women be inferior to that of men. But those who direct the education of girls should rid themselves of the idea from which some had already broken free, that the education of girls in the mass should be modeled upon or conditioned by that of boys.

What they need now is a completely free and unprejudiced review of the whole ground in the light of the gathered experience of 50 years.

NEWLY-ESTABLISHED, REORGANIZED DEPARTMENTS, AND DEPARTMENTS IN WHICH THERE HAS BEEN UNUSUAL GROWTH.

The enrollment at Simpson College, Keokuk, Iowa, has doubled in the past two years, and new courses have been organized in applied design, household management, home nursing, and in demonstrations and practice teaching.

A department of home economics was established in Drury College in 1917.

Home economics course was established at the University of Alabama in 1917.

The University of Georgia organized a department of home economics in the college of agriculture in 1918.

Courses in textiles and clothing were first established at Fairmount College, Wichita, Kans., in 1917.

Mrs. Lizzie Merrill Palmer, the widow of Senator Palmer of Michigan, has bequeathed the residue of her estate amounting to approximately $2,000,000—

for the founding, endowing, and maintenance in the City of Detroit or the township of Greenfield, of a school to be known as the Merrill-Palmer Motherhood and Home Training School, at which, under such plan and system and under such rules and regulations as shall, in the judgment and wisdom of those upon whom the administration of this estate shall devolve, be adopted, girls and young women of the age of 10 years and upwards shall be developed, educated, trained, and disciplined with special reference to training them mentally, morally, physically, and religiously for the discharge of the function of wifehood and motherhood and the management, supervision, and inspiration of the home.—Journal of Home Economics, Oct., 1916.

In 1918 the University of Wisconsin added 14 new courses in home economics to meet the requirements of the training of teachers in home making under the Smith-Hughes Act.

The Agricultural College of Utah reports that—

The department is undergoing a process of reorganization; consequently it is more of plan rather than performance that can be reported, though the great success which attended the introduction of lecture courses last year on human efficiency and mothercraft vouches for the need they meet. Out of a total registration of 180 students in the whole department, 130 entered these courses in an institution where courses are entirely elective.

The most successful establishment also of a practice house in October, 1917, calls for recognition. Thirty senior students and 12 high-school teachers passed through it during the nine months it was open. The former for periods of six weeks and the latter for selected periods of from two to three weeks, during which those who attended during the term had all their expenses paid by their school boards.

In the Connecticut Agricultural College the course of study has been very materially changed to provide for training of the young woman along various lines, first, to teach home economics in the public schools; second, to be extension workers; third and fourth, the col-

lege offered courses in gardening for those who were to act as garden supervisors during the summer and also courses in war cooking and canning.

The Maryland Agricultural College advertises courses in home economics for the first time in the history of that institution.

The home economics department of the University of South Dakota was reorganized the second semester of last year, and courses in the practice house management, practice teaching, and a special course in home nursing were installed.

The department of home economics was established under that name in May, 1916, in the University of California. An adequate building to house the two divisions created at the same time—household art and household science—was erected immediately, and in use during the summer session of 1916.

The staff of household science has added to the two original assistant professors two instructors and one graduate assistant, and has in prospect another assistant professor or instructor.

The University of California offers the following:

Fifth year professional curricula.—Four distinct professional fifth year requirements are contemplated:

1. The teacher's practice year, now in successful operation.
2. The hospital dietitian's practice year, so far not satisfactorily developed.
3. The extension worker's practice year; planned completely, begun in September, 1918.
4. The research student's training year, in successful operation.

The University of Tennessee reports as follows:

In the fall of 1916 we began to require one year of high-school sewing for admission to our freshman class in elementary clothing and dress design, and one year of high-school cookery for admission to our sophomore class in tool production and service. For these students who have had no work in the high school we offer one semester noncredit course in sewing and cookery.

The department was reorganized in 1916–17. Five four-year curricula are offered: 1. The teachers' curriculum. 2. The general curriculum. 3. Institutional management. 4. Food and nutrition. 5. Textile merchandising. The latter is to train students to fill executive positions in department stores, such as that of educational directors, welfare workers, personal service workers, etc. A large part of the work is given in the college of business administration, and opportunity is given for practice work in department stores under supervision. Thus an opportunity is given for an outlet for textile and clothing students such as has been provided for food students in institutional management.

Lincoln College, Lincoln, Ill., becomes a junior college and will hereafter place special stress upon the home economics courses.

The department of home economics at the University of Arizona was made into a school, and a similar recognition was given home economics in the Florida State College for Women, at which place the head of the department of home economics was made the dean of the school.

Delaware College for women has rearranged the curriculum in home economics and accepted the conditions imposed by the Smith-Hughes Act.

Kingfisher (Okla.) College organized home economics in 1916 and placed special stress on diets for children and invalids and home care of the sick.

SURVEYS.

Home economics has been recognized as of special importance by being directly represented in several recent educational surveys—the survey of the public school system of San Francisco; the survey of public education in the State of South Dakota; the Tennessee educational survey; the survey of the schools of Elyria, Ohio; and the survey of the schools of Columbia, S. C.

In all of these survey reports home economics has been given separate chapters or sections of chapters, thus enabling those interested to announce certain principles and policies for the organization and administration of the courses in universities, colleges, normal schools, and public elementary and secondary schools.

ORGANIZATION OF WOMEN INTERESTED IN HOME ECONOMICS EDUCATION.

So rapidly has interest in home economics grown that one association has not been found adequate for the conferences needed by teachers of this subject; hence State associations of home economics and regional associations have been organized. These smaller organizations within States frequently meet with the State educational association and have representation upon its general program.

In many of the larger cities, such as Philadelphia, New York, and Chicago, there are strong city associations of home economics.

Home economics teachers in land-grant colleges were permitted to organize a division of home economics in the college section of the American Association of Agricultural Colleges and Experiment Stations.

The American Home Economics Association holds an annual meeting and also presents programs in connection with the National Education Association's annual meeting and with the Department of Superintendence of the National Education Association.

The Southern Home Economics Association has held one annual meeting at Macon, Ga., and a second meeting at Blue Ridge, N. C.

The Western Home Economics Association was organized and held one meeting in Portland, Oreg., in July, 1917.

Conferences of supervisors of home economics in city schools were called by the Commissioner of Education and met in Portland, Oreg., and in New York City.

HOME ECONOMICS AND NATIONAL SERVICE.

Notable contributions to studies in the cost of living, of the dietary habits of American families, to instruction in food conservation, to propaganda for increased care of children, and to the problems relating to the effect of the war upon living conditions in congested sections of the cities have been made by home-economics women.

Many valuable leaflets, circulars, and bulletins relating to modifications of food preparations to meet war food conditions have been prepared by teachers of foods and nutrition.

Dietitians for the base hospitals in America and for the Army hospitals in France and Italy have been drawn from the ranks of home economics teachers.

Many home economics women have gone into the service as Y. M. C. A. canteen workers or as managers of the Y. W. C. A. hostess houses at Army camps.

Many other home economics women have also been called into Washington to aid in preparing material for publication by the American Red Cross Association, the Food Adminstration, and the Department of Agriculture.

Two honor sororities have been established in the colleges of the country, and through them certain studies of economic importance have been made for which there was no other organized agency.

A new field for home economics women is that of financial advisers of other women. Banks are finding that it pays to have their customers given expert advice in budget making.

LEGISLATION RELATING TO HOME ECONOMICS.

The most notable Federal legislation relating to home economics was that known as the Smith-Hughes Act, by which Federal money was appropriated to assist in the establishment and maintenance of vocational schools in industry, home economics, trade, and agriculture, and which further provided national aid for training teachers for these vocational schools.

This Federal legislation has made necessary further legislation by the legislatures of the various States whereby they have accepted the provisions of the bill and have made appropriations to match the Federal money granted.

The Smith-Hughes bill was signed by President Wilson February 23, 1917, and when a Federal board was appointed they organized and appointed a director, who in turn appointed an assistant director to be in charge of vocational home economics and the administration of that phase of work done under the board.

A complete and final interpretation of the law as it relates to home economics education has not, as yet, been pronounced.

An act of Congress which had important bearing upon home economics education was that which, through an emergency appropriation for the Department of Agriculture, made possible the maintenance of urban extension in home economics. Urban agents have been appointed in many cities.

These various recognitions of the need of more general intelligence relating to home making have greatly increased the demand for specially trained home economics women. The demand has exceeded the supply.

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STATISTICS OF STATE UNIVERSITIES AND STATE COLLEGES

FOR THE YEAR ENDED JUNE 30

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STATISTICS OF STATE UNIVERSITIES AND STATE COLLEGES

For the Year Ended June 30, 1918.

This annual bulletin, formerly prepared and published by the National Association of State Universities, has been published by the Bureau of Education for the past 10 years. The data given are taken from reports received from the offices of the presidents of the various institutions, and the figures printed are substantially as given in those reports.

Directory of State universities and State colleges.[1]

[Names in *italics* are institutions endowed by the Federal Government under the Morrill Acts.]

Location.	Name.	President.
Auburn, Ala	*Alabama Polytechnic Institute*	Charles C. Thach, LL. D.
Montevallo, Ala	Alabama Girls Technical Institute	T. W. Palmer.
University, Ala	University of Alabama	George H. Denny, LL. D.
Tucson, Ariz	*University of Arizona*	R. B. von Klein Smid, A. M.
Fayetteville, Ark	*University of Arkansas*	John C. Futrall, A. M.
Berkeley, Cal	*University of California*	Benj. Ide Wheeler, LL. D.
Boulder, Colo	University of Colorado	George Norlin, Ph. D.
Fort Collins, Colo	*Colorado Agricultural College*	Chas. A. Lory, LL. D.
Golden, Colo	Colorado School of Mines	Victor C. Alderson, Sc. D.
Greeley, Colo	Colorado State Teachers College	John G. Crabbe, Ph. D.
Storrs, Conn	*Connecticut Agricultural College*	Charles L. Beach, B. S.
Newark, Del	*Delaware College*	Samuel C. Mitchell, Ph. D.
Gainesville, Fla	*University of Florida*	Albert A. Murphree, LL. D.
Tallahassee, Fla	Florida State College for Women	Edward Conradi, Ph. D.
Athens, Ga	*University of Georgia*	David C. Barrow, LL. D., chancellor.
Atlanta, Ga	Georgia School of Technology	Kenneth G. Matheson, LL. D.
Dahlonega, Ga	North Georgia Agricultural College	Gustavus R. Glenn, LL. D.
Honolulu, Hawaii	*College of Hawaii*	Arthur L. Dean, Ph. D.
Moscow, Idaho	*University of Idaho*	Ernest H. Lindley, Ph. D.
Pocatello, Idaho	Idaho Technical Institute[2]	N. B. Adkinson, acting.
Urbana, Ill	*University of Illinois*	Edmund J. James, LL. D.
Bloomington, Ind	Indiana University	William L. Bryan, LL. D.
La Fayette, Ind	*Purdue University*	Winthrop E. Stone, LL. D.
Ames, Iowa	*Iowa State College of Agriculture and Mechanic Arts.*	Raymond A. Pearson, LL. D.
Cedar Falls, Iowa	Iowa State Teachers College	Homer H. Seerley, LL. D.
Iowa City, Iowa	State University of Iowa	Walter A. Jessup, Ph. D.
Lawrence, Kans	University of Kansas	Frank Strong, LL. D.
Manhattan, Kans	*Kansas State Agricultural College*	William M. Jardine, LL. D.
Lexington, Ky	*University of Kentucky*	Frank L. McVey, Ph. D.
Baton Rouge, La	*Louisiana State University and Agricultural and Mechanical College.*	Thomas D. Boyd, LL. D.
Orono, Me	*University of Maine*	Robert J. Aley, LL. D.
College Park, Md	*Maryland State College of Agriculture*	Alfred F. Woods, D. Agri.
Amherst, Mass	*Massachusetts Agricultural College*	Kenyon L. Butterfield, LL. D.
Cambridge, Mass	*Massachusetts Institute of Technology*	Richard C. Maclaurin, LL. D.
Ann Arbor, Mich	University of Michigan	Harry B. Hutchins, LL. D.
East Lansing, Mich	*Michigan Agricultural College*	Frank S. Kedzie, Sc. D.
Houghton, Mich	Michigan College of Mines	Fred W. McNair, Sc. D.
Minneapolis, Minn	*University of Minnesota*	Marion Le Roy Burton, LL. D.
Agricultural College, Miss	*Mississippi Agricultural and Mechanical College.*	W. H. Smith, B. S.
Columbus, Miss	Mississippi Industrial Institute and College.	Henry L. Whitfield.

[1] Corrected to March 5, 1919, in so far as changes have been reported to this bureau.
[2] Junior college.

Directory of State universities and State colleges.—Continued.

Location.	Name.	President.
University, Miss.	University of Mississippi	Joseph N. Powers, chancellor.
Columbia, Mo.	*University of Missouri*	Albert Ross Hill, LL. D.
Bozeman, Mont.	*Montana College of Agriculture and Mechanic Arts.*	James M. Hamilton, M. S.
Butte, Mont.	Montana State School of Mines	Charles H. Bowman, M. S.
Missoula, Mont.	University of Montana	Edward O. Sisson, LL. D.
Lincoln, Nebr.	*University of Nebraska*	Samuel Avery, LL. D., chancellor.
Reno, Nev.	*University of Nevada*	Walter E. Clark, Ph. D.
Durham, N. H.	*New Hampshire College of Agriculture and Mechanic Arts.*	Ralph D. Hetzel, LL. D.
New Brunswick, N. J.	*Rutgers College*	Wm. H. S. Demarest, LL. D.
Albuquerque, N. Mex.	University of New Mexico	David R. Boyd, Ph. D.
Socorro, N. Mex.	New Mexico School of Mines	Fayette A. Jones, LL. D.
State College, N. Mex.	*New Mexico College of Agriculture and Mechanic Arts.*	Austin D. Crile.
Albany, N. Y.	New York State College for Teachers	Abraham R. Brubacher, Ph. D
Ithaca, N. Y.	*Cornell University*	Jacob C. Schurman, LL. D.
Syracuse, N. Y.	New York State College of Forestry (at Syracuse University).	Hugh P. Baker, M. F., dean.
Chapel Hill, N. C.	University of North Carolina	
West Raleigh, N. C.	*North Carolina College of Agriculture and Engineering.*	Wallace C. Riddick, C. E.
Agricultural College, N. Dak.	*North Dakota Agricultural College*	Edwin F. Ladd, LL. D.
University, N. Dak.	University of North Dakota	Thomas F. Kane, LL. D.
Athens, Ohio.	Ohio University	Alston Ellis, LL. D.
Columbus, Ohio.	*Ohio State University*	Wm. O. Thompson, LL. D.
Oxford, Ohio.	Miami University	Raymond M. Hughes, M. S.
Chickasha, Okla.	Oklahoma College for Women	G. W. Austin, B. S.
Norman, Okla.	University of Oklahoma	Stratton D. Brooks, Ph. D.
Stillwater, Okla.	*Oklahoma Agricultural and Mechanical College.*	James W. Cantwell, A. M.
Corvallis, Oreg.	*Oregon State Agricultural College*	Wm. J. Kerr, Sc. D.
Eugene, Oreg.	University of Oregon	Prince L. Campbell, A. B.
State College, Pa.	*Pennsylvania State College*	Edwin E. Sparks, LL. D.
San Juan, P. R.	*University of Porto Rico*	Paul G. Miller.
Kingston, R. I.	*Rhode Island State College*	Howard Edwards, LL. D.
Charleston, S. C.	The Citadel, the Military College of South Carolina.	O. J. Bond, A. M., supt.
Clemson College, S. C.	*Clemson Agricultural College*	Walter M. Riggs, E. M. E.
Columbia, S. C.	University of South Carolina	Wm. S. Currell, Ph. D.
Brookings, S. Dak.	*South Dakota State College of Agriculture and Mechanic Arts.*	Ellwood C. Perisho, M. S.
Rapid City, S. Dak.	South Dakota State School of Mines	Cleophas C. O'Harra, Ph. D.
Vermilion, S. Dak.	University of South Dakota	Robert L. Slagle, Ph. D.
Knoxville, Tenn.	*University of Tennessee*	
Austin, Tex.	University of Texas	Robert E. Vinson, LL. D
College Station, Tex.	*Agricultural and Mechanical College of Texas.*	Wm. B. Bizzell, D. C. L.
Denton, Tex.	College of Industrial Arts	F. M. Bralley.
Logan, Utah.	*Agricultural College of Utah*	Elmer G. Peterson, Ph. D.
Salt Lake City, Utah.	University of Utah	John A. Widtsoe, LL. D.
Burlington, Vt.	*University of Vermont and State Agricultural College.*	Guy P. Benton, LL. D.
Blacksburg, Va.	*Virginia Polytechnic Institute*	Joseph D. Eggleston, A. M.
Charlottesville, Va.	University of Virginia	Edwin A. Alderman, LL. D.
Lexington, Va.	Virginia Military Institute	Edward W. Nichols, supt.
Williamsburg, Va.	College of William and Mary	Lyon G. Tyler, LL. D.
Pullman, Wash.	*State College of Washington*	Ernest O. Holland, Ph. D.
Seattle, Wash.	University of Washington	Henry Suzzallo, Ph. D.
Morgantown, W. Va.	*West Virginia University*	Frank B. Trotter, LL. D.
Madison, Wis.	*University of Wisconsin*	Edward A. Birge, LL. D.
Laramie, Wyo.	*University of Wyoming*	Aven Nelson, Ph. D.

TABLE 1.—*The teaching force in State universities and State colleges.*

Names of institutions.	Professors and instructors.			President's salary.	Maximum and minimum salaries.														House in addition to salary for—	
					Deans.		Professors.		Associate professors.		Assistant professors.		Adjunct professors.		Instructors.		Assistants.		Tutors and others.			
	Men.	Women.	Total.		Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	President.	Professors.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Alabama Polytechnic Institute	87	0	87	$5,000	$3,000	.....	$2,400	$1,800	.....	.....	$1,800	$1,200	.....	.....	$1,200	$700	$700	$250	.....	.....	No.	0
Alabama Girls Technical Institute	3	33	36	4,000	1,350	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	No.	0
University of Alabama	81	1	82	5,658	3,200	$2,400	2,400	1,800	$1,800	$1,000	1,500	1,000	$1,200	$1,000	600	300	.....	.....	.....	.....	No.	0
University of Arizona	52	12	64	6,000	3,600	3,000	2,650	1,500	2,150	1,900	2,000	1,600	.....	.....	1,550	1,200	1,200	900	$2,000	$900	Yes.	0
University of Arkansas	115	21	136	5,000	3,250	3,000	2,500	600	1,500	1,000	1,800	1,500	.....	.....	1,500	400	950	600	.....	.....	Yes.	0
University of California	653	74	727	12,000	.....	.....	8,000	3,000	3,000	2,100	2,700	1,600	.....	.....	2,300	700	.....	.....	1,500	50	No.	0
University of Colorado	180	29	209	7,500	4,200	3,200	3,200	1,800	.....	.....	1,800	1,400	.....	.....	1,200	800	800	400	400	100	Yes.	3
Colorado Agricultural College	81	31	112	5,000	3,000	.....	3,000	2,000	1,800	1,600	1,500	1,300	.....	.....	1,200	100	900	.....	.....	.....	Yes.	0
Colorado School of Mines	18	0	18	6,000	.....	.....	3,500	2,500	2,000	.....	1,800	1,800	.....	.....	1,200	1,200	.....	.....	.....	.....	Yes.	0
Colorado State Teachers College	37	41	78	6,000	3,200	2,450	2,800	1,600	.....	.....	1,700	1,200	.....	.....	1,800	600	1,200	780	.....	.....	Yes.	0
Connecticut Agricultural College	20	5	25	4,500	3,000	.....	2,500	2,000	.....	.....	1,800	1,500	.....	.....	1,600	600	.....	.....	.....	.....	No.	0
Delaware College	39	5	44	6,000	4,000	2,450	3,000	2,000	.....	.....	1,750	1,400	.....	.....	1,400	1,000	.....	.....	.....	.....	No.	0
University of Florida	62	3	65	4,200	4,000	2,200	2,200	1,800	.....	.....	1,800	1,400	.....	.....	1,200	600	400	100	.....	.....	No.	0
Florida State College for Women	13	27	40	4,000	2,200	.....	2,000	1,800	.....	.....	1,600	1,400	.....	.....	1,000	700	.....	.....	.....	.....	No.	0
University of Georgia	81	0	81	6,000	.....	.....	3,200	2,000	1,800	1,800	.....	.....	1,500	1,500	1,200	1,000	.....	.....	600	100	Yes.	0
Georgia School of Technology	66	0	66	6,500	3,000	2,400	2,500	2,100	1,900	1,200	.....	.....	.....	.....	600	140	350	150	.....	.....	Yes.	5
North Georgia Agricultural College	13	1	14	2,500	1,700	.....	1,600	.....	1,200	.....	.....	.....	.....	.....	720	.....	.....	.....	.....	.....	No.	0
College of Hawaii	15	8	23	5,000	.....	.....	3,500	2,100	.....	.....	1,800	1,800	.....	.....	1,800	1,200	720	720	.....	.....	No.	0
University of Idaho	81	22	103	6,000	2,900	1,800	2,500	2,000	2,000	1,700	1,800	1,400	.....	.....	1,500	1,000	900	.....	.....	.....	No.	0
Idaho Technical Institute	14	8	22	3,500	2,000	1,500	2,000	1,500	2,000	1,500	.....	.....	.....	.....	1,700	1,200	.....	.....	.....	.....	No.	0
University of Illinois	712	82	794	12,000	6,000	5,000	5,500	3,000	3,750	2,500	3,500	2,100	.....	.....	2,000	1,200	1,200	600	.....	.....	Yes.	0
Indiana University	175	31	206	7,500	5,000	3,300	3,400	2,200	2,300	1,800	1,900	1,200	.....	.....	1,300	700	800	50	900	200	No.	0
Purdue University (Ind.)	172	14	186	6,000	4,500	2,000	3,000	2,500	2,500	2,000	2,000	1,800	.....	.....	1,500	1,000	900	500	.....	.....	No.	0
Iowa State College of Agriculture and Mechanic Arts.	228	70	298	7,500	4,800	3,000	3,500	2,400	2,800	1,500	2,700	1,400	.....	.....	1,800	1,000	1,200	800	.....	.....	No.	0
Iowa State Teachers College	44	60	104	7,000	2,400	1,700	2,400	1,500	2,000	1,400	1,900	1,200	.....	.....	1,400	900	1,300	405	120	60	Yes.	6
State University of Iowa	218	42	260	10,000	5,000	1,200	5,000	.....	2,750	2,250	3,000	1,500	.....	.....	2,500	.....	1,600	.....	.....	.....	Yes.	0
University of Kansas	190	53	243	6,000	4,000	3,500	3,500	2,200	2,200	1,700	1,700	1,200	.....	.....	1,200	600	600	300	.....	.....	Yes.	0
Kansas State Agricultural College	131	56	187	6,500	4,000	2,750	3,800	1,850	2,600	1,700	2,500	1,600	2,000	1,400	1,900	700	1,500	600	2,500	400	No.	0
University of Kentucky	84	16	100	8,500	6,200	2,350	3,000	1,200	1,700	1,200	1,500	1,200	.....	.....	1,300	500	.....	.....	350	.....	No.	1

TABLE 1.—*The teaching force in State universities and State colleges*—Continued.

Names of institutions.	Professors and instructors.			President's salary.	Maximum and minimum salaries.																House in addition to salary for—	
					Deans.		Professors.		Associate professors.		Assistant professors.		Adjunct professors.		Instructors.		Assistants.		Tutors and others.			
	Men.	Women.	Total.		Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	President.	Professors.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Louisiana State University and Agricultural and Mechanical College.	65	13	78	5,000	4,000	2,200	2,500	1,600	.....	.....	.....	.....	1,800	1,200	1,350	600	300	300	2,400	600	Yes.	0
University of Maine	90	5	95	6,000	3,000	3,000	2,300	1,700	1,800	1,500	1,400	1,200	.....	.....	1,300	800	500	300	.....	.....	Yes.	0
Maryland State College of Agriculture.	42	0	42	10,000	3,000	1,800	2,400	1,500	2,000	1,500	1,800	1,200	.....	.....	1,500	1,200	.....	.....	.....	.....	No.	0
Massachusetts Agricultural College	72	2	74	7,500	4,200	3,500	3,600	2,500	2,500	2,000	2,000	1,600	.....	.....	1,600	1,200	1,200	840	600	420	Yes.	0
Massachusetts Institute of Technology.	231	3	234	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
University of Michigan	433	5	438	10,000	5,000	3,200	4,500	2,000	3,000	1,800	2,400	1,600	.....	.....	2,100	900	900	300	.....	.....	No.	0
Michigan Agricultural College	133	28	161	6,500	3,500	3,200	4,500	700	2,500	800	1,950	900	.....	.....	1,700	350	1,500	400	.....	.....	No.	8
Michigan College of Mines	21	0	21	5,000	.....	.....	3,000	2,250	2,100	.....	1,700	1,500	.....	.....	1,500	900	.....	.....	.....	.....	No.	0
University of Minnesota	555	87	642	10,000	6,000	3,000	5,000	2,300	3,500	2,000	3,000	1,500	.....	.....	1,900	900	.....	.....	.....	.....	Yes.	0
Mississippi Agricultural and Mechanical College.	82	3	85	3,500	2,750	2,250	2,000	1,800	1,500	1,500	1,400	1,000	.....	.....	1,100	720	.....	.....	600	240	Yes.	0
Mississippi Industrial Institute and College.	7	60	67	3,500	.....	.....	2,000	720	.....	.....	960	350	.....	.....	.....	.....	860	700	.....	.....	Yes.	4
University of Mississippi	31	1	32	3,500	3,000	2,000	2,000	2,000	2,000	1,200	1,500	1,200	.....	.....	1,200	.....	300	150	.....	.....	Yes.	0
University of Missouri	212	12	224	9,000	4,500	3,600	3,600	2,400	2,400	1,800	2,200	1,500	.....	.....	1,600	900	1,000	100	300	100	Yes.	1
Montana College of Agriculture and Mechanic Arts.	59	22	81	4,500	4,000	2,500	3,600	2,000	.....	.....	2,000	1,600	.....	.....	1,600	1,200	600	450	.....	.....	No.	0
Montana State School of Mines	7	0	7	4,000	.....	.....	3,250	2,200	.....	.....	2,750	.....	.....	.....	.....	.....	.....	.....	.....	.....	No.	1
University of Montana	46	10	56	5,000	3,300	2,100	3,000	2,100	.....	.....	2,000	1,200	.....	.....	1,400	1,000	.....	.....	.....	.....	No.	0
University of Nebraska	229	58	287	6,000	3,500	2,300	3,100	1,500	1,900	1,400	2,300	800	.....	.....	1,700	450	1,620	300	300	150	No.	0
University of Nevada	38	10	48	6,000	3,000	2,000	2,500	2,500	2,200	2,200	1,800	1,800	.....	.....	1,500	1,200	600	100	300	50	Yes.	0
New Hampshire College of Agriculture and Mechanic Arts.	65	8	73	5,000	2,800	.....	2,600	1,800	2,000	1,700	1,900	1,200	.....	.....	1,600	1.00 50	,840	500	.....	.....	Yes.	0
Rutgers College (N. J.)	70	1	71	6,000	.....	.....	3,600	2,200	2,200	2,000	2,000	1,800	.....	.....	1,600	1 00	.....	.....	.....	.....	Yes.	0
University of New Mexico	20	4	24	4,500	2,100	.....	2,100	1,800	1,700	1,000	900	.....	.....	.....	.....	.....	300	100	.....	.....	No.	0
New Mexico School of Mines	8	0	8	3,000	.....	.....	2,000	1,200	.....	.....	.....	.....	.....	.....	400	.....	.....	.....	.....	.....	No.	0

New Mexico College of Agriculture and Mechanic Arts.	33	7	40	4,500	2,600	2,250	2,250	1,800	.....	.....	1,800	1,400	.....	.....	1,300	1,200	.....	.....	.....	.....	Yes.	0
New York State College for Teachers.	32	25	57	6,000	4,500	1,950	3,250	2,750	.....	.....	2,150	1,750	.....	.....	1,900	1,000	.....	.....	1,800	800	Yes.	0
Cornell University (N. Y.)	769	64	833	10,000	8,000	3,500	6,000	2,500	.....	.....	2,500	2,000	.....	.....	1,200	800	1,200	50	.....	.....	Yes.	2
New York State College of Forestry (at Syracuse University).	24	0	24	5,000	.....	.....	3,000	2,100	2,000	1,700	2,000	1,700	.....	.....	1,600	1,200	840	.....	.....	.....	No.	0
University of North Carolina	93	0	93	6,000	3,250	2,500	3,000	2,500	2,000	1,750	1,650	1,500	.....	.....	1,450	800	500	50	.....	.....	Yes.	0
North Carolina College of Agriculture and Engineering.	60	0	60	4,500	3,000	.....	2,500	500	1,800	1,350	1,600	1,200	.....	.....	1,800	500	250	75	.....	.....	No.	0
North Dakota Agricultural College	50	22	72	5,000	3,600	2,600	2,600	1,700	2,100	1,700	1,800	1,600	.....	.....	1,600	1,080	250	50	.....	.....	No.	0
University of North Dakota	68	15	83	6,000	3,500	3,400	3,000	2,200	2,350	2,100	2,300	1,400	.....	.....	1,600	1,200	1,000	900	300	100	Yes.	0
Ohio University	55	48	103	6,000	3,000	3,000	2,300	1,800	2,100	1,800	1,700	1,000	.....	.....	1,300	800	1,250	350	.....	.....	Yes.	0
Ohio State University	399	48	447	10,000	5,000	3,500	3,500	2,000	2,200	2,000	2,000	1,800	.....	.....	1,800	1,000	1,000	600	.....	.....	Yes.	0
Miami University (Ohio)	50	24	74	5,500	3,200	3,000	2,500	2,000	2,000	1,600	1,800	1,300	2,300	1,500	1,325	900	300	100	.....	.....	No.	0
Oklahoma College for Women	5	28	33	4,500	2,500	.....	1,800	.....	1,200	.....	1,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	Yes.	1
University of Oklahoma	168	22	190	7,500	3,000	2,100	2,700	1,800	2,400	1,800	1,700	1,400	.....	.....	1,300	1,000	900	450	.....	.....	No.	0
Oklahoma Agricultural and Mechanical College.	61	28	89	5,000	2,800	2,400	2,500	2,000	2,000	1,800	1,700	1,400	.....	.....	1,300	1,000	900	700	270	135	Yes.	0
Oregon State Agricultural College	97	16	113	7,000	3,600	2,700	3,200	1,900	2,600	1,700	2,100	1,400	.....	.....	1,500	900	500	.....	.....	600	No.	0
University of Oregon	120	22	142	5,000	3,000	2,500	2,500	1,600	.....	.....	1,500	1,400	.....	.....	.....	.....	1,200	100	.....	.....	Yes.	0
Pennsylvania State College	240	15	255	9,000	5,000	1,600	2,850	1,800	2,500	1,500	2,400	1,200	.....	.....	1,800	900	1,200	700	.....	.....	Yes.	5
University of Porto Rico	42	27	69	.....	3,500	3,000	2,500	1,800	.....	.....	1,700	1,500	.....	.....	1,400	300	450	225	.....	.....	.....	.....
Rhode Island State College	21	7	28	4,500	2,500	2,400	2,400	1,800	.....	.....	1,800	1,500	.....	.....	1,500	900	.....	.....	.....	.....	No.	0
The Citadel, the Military College of South Carolina.	14	0	14	4,000	.....	.....	2,500	.....	2,000	1,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Yes.	0
Clemson Agricultural College (S. C.)	70	0	70	5,000	3,000	2,500	2,500	1,900	1,700	1,700	1,500	1,500	.....	.....	1,200	900	1,200	900	.....	.....	No.	0
University of South Carolina	32	0	32	5,000	2,000	2,000	2,400	2,000	1,500	1,500	.....	.....	1,200	1,200	800	90	400	300	.....	.....	Yes.	22
South Dakota State College of Agriculture and Mechanic Arts.	43	18	61	4,200	3,000	.....	3,000	1,300	2,200	1,700	2,000	1,700	.....	.....	1,400	375	1,400	720	.....	.....	No.	0
South Dakota State School of Mines	12	1	13	3,000	.....	.....	1,900	.....	.....	.....	.....	.....	.....	.....	1,400	.....	.....	.....	.....	.....	No.	0
University of South Dakota	37	14	51	5,000	3,000	2,600	2,600	1,600	.....	.....	1,700	1,500	.....	.....	1,550	800	1,400	300	.....	.....	No.	0
University of Tennessee	200	18	218	5,700	3,200	2,500	2,700	2,000	1,800	1,600	1,500	1,200	.....	.....	1,500	900	800	125	.....	.....	Yes.	0
University of Texas	170	31	201	6,000	4,000	3,250	3,500	1,000	2,500	1,800	.....	.....	2,300	1,700	1,800	300	450	100	1,000	450	No.	0
Agricultural and Mechanical College of Texas.	105	0	105	6,000	3,300	3,000	3,000	1,800	2,000	1,650	1,700	1,200	.....	.....	1,500	1,000	1,000	200	.....	.....	Yes.	0
College of Industrial Arts (Tex.)	13	68	81	5,500	2,750	2,000	2,000	1,800	2,000	1,400	1,800	1,200	.....	.....	1,500	1,000	.....	.....	.....	.....	Yes.	0
Agricultural College of Utah	67	19	86	5,500	3,600	2,800	3,000	1,800	2,750	300	2,100	1,600	.....	.....	2,000	1,000	1,700	200	.....	.....	No.	0
University of Utah	97	32	129	6,000	3,600	2,800	2,750	.....	2,100	1,600	.....	.....	2,000	1,000	1,700	200	1,000	250	.....	.....	No.	0
University of Vermont and State Agricultural College.	100	4	104	7,000	3,000	3,000	2,700	2,300	.....	.....	1,800	1,800	.....	.....	1,800	800	600	300	.....	.....	Yes.	
Virginia Polytechnic Institute	55	0	55	5,000	2,800	2,200	2,000	1,700	1,750	1,200	.....	.....	.....	.....	1,500	800	250	250	250	120	Yes.	20
University of Virginia	98	0	98	8,000	.....	.....	3,300	2,500	2,450	1,450	.....	.....	2,450	900	1,000	300	850	100	250	100	Yes.	9
Virginia Military Institute	28	0	28	4,500	.....	.....	2,500	2,300	.....	.....	1,000	500	1,200	1,200	.....	.....	.....	.....	.....	.....	Yes.	10
College of William and Mary (Va.)	13	0	13	3,000	2,100	.....	2,000	1,800	.....	.....	1,600	.....	.....	.....	1,200	.....	135	.....	.....	.....	Yes.	0
State College of Washington	114	20	134	8,000	3,300	2,100	3,150	2,200	2,200	1,800	1,800	1,400	.....	.....	1,500	1,000	900	500	.....	.....	Yes.	
University of Washington	184	33	217	10,000	3,000	2,400	3,000	2,200	2,400	1,800	2,000	1,200	.....	.....	1,800	1,100	1,000	450	900	150	Yes.	
West Virginia University	105	12	117	5,000	4,000	3,000	3,000	2,400	2,400	2,000	2,400	1,500	.....	.....	1,800	1,000	1,000	350	350	50	Yes.	0
University of Wisconsin	380	76	456	7,000	5,250	3,500	5,000	2,850	3,500	2,250	3,500	1,650	.....	.....	1,900	750	1,100	400	500	150	Yes.	
University of Wyoming	36	16	52	5,000	3,000	.....	2,400	2,000	2,000	1,800	1,600	1,400	.....	.....	1,300	500	960	500	600	100	Yes.	

TABLE 2.—*Student enrollment in State universities and State colleges.*

Names of institutions.	Regular term enrollment.													Enrolled in 1917 summer school.		Enrolled in other short courses.		Enrolled in professional departments.				Students in military drill.
	Preparatory department.[1]		Collegiate department.		Graduate department.		Professional departments.		All other students.[2]		Total (excluding duplicates).											
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.	Men.	Women.	Law.	Medicine.	Dentistry.	Pharmacy.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Alabama Polytechnic Institute	.....	.....	563	12	9	0	64	0	144	0	780	12	792	200	348	.....	.....	0	0	0	20	638
Alabama Girls Technical Institute	0	125	0	366	0	0	0	0	0	0	0	491	491	0	206	0	124	0	0	0	0	0
University of Alabama	.....	.....	546	134	3	0	119	3	8	4	676	141	817	234	556	.....	.....	65	51	0	6	340
University of Arizona	.....	.....	217	195	10	20	.....	.....	8	27	235	242	477	.....	.....	121	137	0	0	0	0	145
University of Arkansas	34	42	318	247	1	3	0	0	17	16	352	289	641	42	160	139	0	0	0	0	0	202
University of California	.....	.....	2,737	3,255	238	510	463	46	.....	.....	3,438	3,811	7,249	868	3,111	.....	.....	96	160	166	87	1,439
University of Colorado	.....	.....	619	466	45	22	125	16	.....	.....	789	504	1,293	147	624	.....	.....	41	79	.....	21	490
Colorado Agricultural College	256	97	293	210	.....	.....	33	0	43	132	549	307	856	13	23	.....	.....	0	0	0	0	217
Colorado School of Mines	.....	.....	163	1	.....	.....	.....	.....	.....	.....	163	1	164	.....	.....	.....	.....	0	0	0	0	.....
Colorado State Teachers' College	125	385	101	1,623	24	44	.....	.....	50	532	226	2,008	2,234	83	909	.....	.....	0	0	0	0	100
Connecticut Agricultural College	49	6	112	25	0	0	0	0	0	0	161	31	192	0	0	.....	.....	0	0	0	0	161
Delaware College	.....	.....	216	120	.....	.....	.....	.....	0	3	216	120	336	25	256	.....	.....	0	0	0	0	157
University of Florida	36	0	259	0	5	0	46	0	.....	.....	346	0	346	139	294	159	0	46	0	0	0	192
Florida State College for Women	0	51	0	361	0	1	0	0	0	73	486	0	486	14	419	0	84	0	0	0	0	0
University of Georgia[3]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	0	0	.....
Georgia School of Technology	.....	.....	945	0	.....	.....	.....	.....	.....	.....	945	0	945	112	0	.....	.....	0	0	0	0	833
North Georgia Agricultural College[3]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	0	0	.....
College of Hawaii	.....	.....	45	14	0	2	.....	.....	20	59	65	75	140	.....	.....	.....	.....	0	0	0	0	.....
University of Idaho	.....	.....	242	173	6	7	25	0	0	25	267	173	440	.....	.....	70	10	25	0	0	0	218
Idaho Technical Institute	112	61	13	35	0	0	0	0	5	26	125	96	221	0	0	0	0	0	0	0	0	50
University of Illinois	.....	.....	2,781	1,302	298	77	605	77	.....	.....	3,674	1,413	5,087	423	410	112	85	46	263	173	147	1,857
Indiana University	.....	.....	743	1,465	100	86	259	6	.....	.....	1,102	1,557	2,659	.....	.....	.....	.....	43	222	.....	.....	433
Purdue University (Ind.)	.....	.....	1,408	213	16	3	29	3	10	13	1,437	216	1,653	12	25	58	13	0	0	0	32	962
Iowa State College of Agriculture and Mechanic Arts	357	99	1,478	573	91	16	114	0	.....	.....	1,939	672	2,611	307	379	2,055	579	0	0	0	0	2,178
Iowa State Teachers' College	73	427	143	984	.....	.....	.....	.....	17	77	233	1,488	1,721	172	2,216	.....	.....	0	0	0	0	.....
State University of Iowa	.....	.....	972	1,055	234	241	617	197	5	50	1,780	1,523	3,303	340	462	.....	.....	82	244	272	41	555
University of Kansas	.....	.....	1,053	815	42	45	286	38	41	76	1,328	1,018	2,346	312	431	.....	.....	112	170	0	42	660
Kansas State Agricultural College	143	57	799	634	25	11	64	0	41	97	1,072	799	1,871	153	328	254	90	0	0	0	0	538
University of Kentucky	.....	.....	410	236	12	6	53	2	20	20	495	264	759	27	52	48	9	55	0	0	0	272

Louisiana State University and Agricultural and Mechanical College[3]																					
University of Maine			645	228	7	2	34	0			685	228	913	42	50						386
Maryland State College of Agriculture	13	1	166	3	10	0	0	0	12	[1]1	201	5	206	19	123	13	37	34	0	0	0	500
Massachusetts Agricultural College			388	24	28	1	0	0	54	8	470	33	503	12	78	84	6	0	0	0	0	121
Massachusetts Institute of Technology			1,565	16	32	0			18	3	1,615	19	1,634	630	0			0	0	0	0	292
University of Michigan			3,529	1,298	184	81	935	54			4,548	1,384	5,932	1,040	409			191	382	337	79	1,300
Michigan Agricultural College			724	354	8	1	53	0			785	355	1,140	96	110	356	0	0	0	0	0	1,700
Michigan College of Mines			69	0							69	0	69					0	0	0	0	750
University of Minnesota	813	355	1,868	1,833	221	106	820	124			3,722	2,418	6,140	193	449			144	296	240	77	1,661
Mississippi Agricultural and Mechanical College	69	0	808	0	12	0	0	0	94	0	983	0	983	64	311	58	0	0	0	0	0	983
Mississippi Industrial Institute and College[3]																						
University of Mississippi			209	52	3	0	111	2	34	18	357	72	429	58	114			39	58	0	16	200
University of Missouri[3]																						
Montana College of Agriculture and Mechanic Arts	160	28	228	266							388	294	682	0	176			0	0	0	0	363
Montana State College of Mines			51	1							51	1	52					0	0	0	0	
University of Montana			152	277	6	9	37	15	30	58	225	359	584	53	226	10		32	0	0	20	138
University of Nebraska	67	188	1,424	1,780	127	175	420	20	121	256	1,807	1,740	3,547	190	466	164	1	115	285	0	40	651
University of Nevada			151	162	3	8					154	170	324	14	87	17	0	0	0	0	0	109
New Hampshire College of Agriculture and Mechanic Arts			395	159	0	0	0	0	4	4	399	163	562					0	0	0	0	390
Rutgers College (N. J.)	72	0	451	0	10	0	0	0	0	0	533	0	533	88	407	2	76	0	0	0	0	325
University of New Mexico	7	4	78	99			0	0	26	31	111	134	245					0	0	0	0	
New Mexico School of Mines	2	0	18	0	0	0	0	0	1	0	19	0	19	0	0	0	0	0	0	0	0	0
New Mexico College of Agriculture and Mechanic Arts	118	48	42	0	1	0	0	0	1	4	162	68	230					0	0	0	0	169
New York State College for Teachers	50	180	114	677	5	5	0	0	9	32	178	894	1,072	35	218			0	0	0	0	
Cornell University (N. Y.)			2,622	749	226	52	454	57			3,302	858	4,160	417	908	151	39	193	210	0	0	1,760
New York State College of Forestry (at Syracuse University)			128	0	0	0	0	0	0	0	128	0	128	0	0	0	0	0	0	0		
University of North Carolina			673	17	21	4	140	0			834	21	855	212	589	0	0	57	57	0	26	
North Carolina College of Agriculture and Engineering			448	0	16	0	0	0	86	0	552	0	552	485	0	5	0	0	0	0	0	560
North Dakota Agricultural College	214	68	225	157	6	2	29	2	6	5	480	234	714	42	94	168	5	0	0	0	20	207
University of North Dakota	44	49	226	364	8	5	58	5	20	23	256	446	802	55	234			33	30	0	0	152
Ohio University	34	40	225	612							259	652	911	351	1,365			0	0	0	0	
Ohio State University			2,545	1,392	106	55	523	28			3,074	1,422	4,496	403	483	119	0	80	161	143	81	1,625
Miami University (Ohio)			327	508	0	1	0	0	0	0	327	509	836	102	501			0	0	0	0	327
Oklahoma College for Women			0	102	0	0	0	0	0	19	0	121	121	0	0	0	0	0	0	0	0	
University of Oklahoma			811	606	24	19	150	6	158	375	945	638	1,583	370	677			81	75	0	0	480
Oklahoma Agricultural and Mechanical College	283	302	309	189	5	2	0	0	21	26	618	519	1,137	90	305	117	3	0	0	0	0	714
Oregon State Agricultural College	44	27	875	648	17	3	35	19	80	73	971	697	1,668	96	268	969	452				54	971
University of Oregon			408	541	5	7	73	9	259	76	672	624	1,296	148	354			4	78	0	0	475
Pennsylvania State College			1,743	257	37	7	0	0	137	12	1,917	276	2,193	132	683	76	16	0	0	0	0	

[1] Including secondary schools. [2] Includes students in music, art, oratory, business, etc., unless they are enrolled in four-year courses leading to a collegiate degree. [3] No report.

TABLE 2.—*Student enrollment in State universities and State colleges*—Continued

Names of institutions.	Regular term enrollment.													Enrolled in 1917 summer school.		Enrolled in other short courses.		Enrolled in professional departments.				Students in military drill.
	Preparatory department.		Collegiate department.		Graduate department.		Professional departments.		All other students.		Total (excluding duplicates).											
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.	Men.	Women.	Law.	Medicine.	Dentistry.	Pharmacy.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
University of Porto Rico	114	13	76	0	0	0	0	0	0	0	190	13	203	27	106	.....	.....	0	0	0	0	175
Rhode Island State College	.....	.....	194	49	0	0	0	0	0	0	194	49	243	0	0	0	0	0	0	0	0	190
The Citadel, the Military College of South Carolina	.....	.....	330	0	0	0	0	0	0	0	330	0	330	0	0	0	0	0	0	0	0	330
Clemson Agricultural College (S. C.)	.....	.....	756	0	8	0	0	0	40	0	804	0	804	0	0	0	0	0	0	0	0	804
University of South Carolina	.....	.....	237	27	20	11	40	3	26	23	322	64	386	21	39	0	0	43	0	0	0	200
South Dakota State College of Agriture and Mechanic Arts	230	85	174	137	5	0	15	4	14	43	438	269	707	69	136	66	7	0	0	0	19	308
South Dakota State School of Mines	30	1	43	3	0	0	0	0	16	12	89	16	105	0	0	0	0	0	0	0	0	0
University of South Dakota	.....	.....	117	183	2	4	88	4	16	22	228	276	504	34	88	.....	.....	39	53	0	0	.....
University of Tennessee	.....	.....	397	247	7	3	175	4	.....	.....	579	254	833	324	966	91	0	39	90	44	5	357
University of Texas[1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Agricultural and Mechanical College of Texas	.....	.....	808	0	12	0	14	0	332	0	1,152	0	1,152	926	206	.....	.....	0	0	0	0	1,120
College of Industrial Arts (Texas)	0	116	0	886	0	0	0	0	0	245	0	1,247	1,247	0	686	0	0	0	0	0	0	.....
Agricultural College of Utah	.....	.....	299	191	8	0	0	0	239	100	546	291	837	45	151	0	0	0	0	0	0	293
University of Utah	33	52	411	458	36	4	143	0	76	51	663	541	1,204	81	427	.....	.....	49	94	0	0	555
University of Vermont and State Agricultural College	.....	.....	295	179	2	2	105	0	2	6	404	187	591	30	201	18	0	0	105	0	0	220
Virginia Polytechnic Institute	.....	.....	449	0	8	0	0	0	63	0	519	0	519	35	22	52	1	0	0	0	0	511
University of Virginia	.....	.....	566	0	16	0	201	0	0	0	780	0	780	.....	.....	0	0	100	101	0	0	450
Virginia Military Institute	.....	.....	584	0	0	0	0	0	0	0	584	0	584	0	0	0	0	0	0	0	0	584
College of William and Mary (Va.)	9	0	140	0	0	0	0	0	0	0	149	0	149	67	0	0	0	0	0	0	0	133
State College of Washington	127	121	775	586	65	54	52	23	2	1	967	761	1,728	121	253	206	34	0	0	0	49	500
University of Washington	.....	.....	1,132	1,418	54	62	80	25	0	0	1,266	1,505	2,771	277	968	0	0	80	0	0	53	921
West Virginia University	.....	.....	546	312	19	15	79	6	13	83	653	333	986	142	359	5	0	32	34	0	19	487
University of Wisconsin	.....	.....	1,998	1,636	228	125	224	19	2	54	2,452	1,834	4,286	965	1,369	206	3	82	126	0	35	1,177
University of Wyoming	36	32	78	114	2	0	0	0	19	66	135	212	347	20	241	3	0	0	0	0	0	112

[1] No report.

TABLE 3.—*Property and income of*

	Names of institutions.	Property.				
		Bound volumes in libraries.	Value of library, scientific apparatus, machinery, and furniture.	Value of grounds (including farm).	Value of buildings.	Endowment funds.
	1	2	3	4	5	6
1	Alabama Polytechnic Institute	33,550	$185,000	$10,000	$525,000	$284,500
2	Alabama Girls Technical Institute	9,500	25,000	6,000	400,000	307,884
3	University of Alabama	40,000	182,000	300,000	957,318	742,806
4	University of Arizona	28,000	145,692	190,950	653,500	10,500
5	University of Arkansas	30,000	270,000	75,000	390,000	132,666
6	University of California	376,353	2,845,893	.....	11,400,891	5,490,430
7	University of Colorado	106,905	390,000	200,000	940,000	80,000
8	Colorado Agricultural College	40,000	258,825	470,000	498,955	202,783
9	Colorado School of Mines	15,000	275,332	83,914	455,009	.....
10	Colorado State Teachers College	51,000	126,868	170,000	452,000	.....
11	Connecticut Agricultural College	16,000	130,000	63,315	867,566	256,699
12	Delaware College [2]	26,000	204,129	400,000	819,000	286,000
13	University of Florida	32,500	97,000	185,000	426,000	.....
14	Florida State College for Women	10,000	70,000	85,000	355,000	.....
15	University of Georgia [2]	43,000	165,000	585,000	625,000	349,291
16	Georgia School of Technology	12,270	180,000	150,000	450,000	200,000
17	North Georgia Agricultural College	4,000	6,000	20,000	85,000	.....
18	College of Hawaii	23,933	133,719	126,116	70,499	.....
19	University of Idaho	42,000	203,693	60,000	628,712	1,500,000
20	Idaho Technical Institute	8,370	39,649	59,500	197,900	.....
21	University of Illinois	410,573	2,158,365	860,659	3,877,932	649,012
22	Indiana University	121,718	214,400	223,600	1,120,000	878,400
23	Purdue University (Ind.)	49,464	540,000	200,000	1,600,000	440,000
24	Iowa State College of Agriculture and Mechanic Arts. [2]	66,100	982,576	209,795	2,758,357	689,530
25	Iowa State Teachers College	51,000	218,600	42,055	1,000,000	.....
26	State University of Iowa	147,349	1,207,611	508,453	2,692,586	336,813
27	University of Kansas	120,109	500,000	500,000	1,250,000	.....
28	Kansas State Agricultural College	61,360	629,677	538,210	988,684	491,746
29	University of Kentucky	33,869	211,666	227,749	697,685	187,185
30	Louisiana State University and Agricultural and Mechanical College. [2]	38,454	219,443	177,341	573,790	318,713
31	University of Maine	56,000	238,015	11,000	712,347	252,050
32	Maryland State College of Agriculture	17,500	161,468	85,800	573,397	.....
33	Massachusetts Agricultural College	57,802	592,836	122,718	999,389	361,000
34	Massachusetts Institute of Technology	129,811	1,575,000	2,568,000	6,092,000	9,616,000
35	University of Michigan	401,005	2,412,858	791,462	4,493,591	1,326,412
36	Michigan Agricultural College	43,000	266,000	110,377	1,239,650	991,241
37	Michigan College of Mines	28,299	340,091	104,025	336,168	.....
38	University of Minnesota	289,110	2,060,912	2,656,420	6,090,417	1,785,570
39	Mississippi Agricultural and Mechanical College.	29,416	455,969	157,520	810,090	.....
40	Mississippi Industrial Institute and College. [2]	11,000	68,676	195,000	458,600	.....
41	University of Mississippi	31,000	110,000	20,000	465,000	700,000
42	University of Missouri [2]	211,814	1,193,670	801,385	1,987,470	1,309,339
43	Montana College of Agriculture and Mechanic Arts.	16,314	248,442	91,773	333,145	680,250
44	Montana State School of Mines	9,000	51,000	.....	152,000	.....
45	University of Montana	42,000	134,790	120,000	220,100	.....
46	University of Nebraska	138,500	716,848	951,639	2,346,018	871,507
47	University of Nevada	31,000	236,887	415,298	230,970	330,554
48	New Hampshire College of Agriculture and Mechanic Arts.	35,000	40,000	87,000	520,000	950,000
49	Rutgers College (N. J.)	93,720	279,000	454,500	1,049,579	891,277
50	University of New Mexico	13,000	57,295	45,000	190,035	20,761
51	New Mexico School of Mines	2,220	22,713	8,000	75,000	.....
52	New Mexico College of Agriculture and Mechanic Arts.	18,323	200,000	30,000	100,000	.....
53	New York State College for Teachers	4,802	36,300	100,000	450,000	.....
54	Cornell University (N. Y.)	557,931	2,674,926	373,259	6,626,095	14,221,996
55	New York State College of Forestry (at Syracuse University).	3,500	138,000	10,000	280,000	.....
56	University of North Carolina	77,205	394,700	125,500	801,500	216,548

[1] Includes appropriations for experiment stations, farmers' institutes, and extension work.

State universities and State colleges.

Income from—							Analysis of State appropriations.				
Student fees, excluding board and room rent.	Productive funds.	The State.[1]	United States Government.	Private benefactions.	All other sources.	Total working income.	Mill tax rate.	Receipts from mill tax.	Appropriation for current expenses.[1]	For building and permanent improvements.	
7	8	9	10	11	12	13	14	15	16	17	
$13,242	$21,440	$102,445	$125,761	.....	$18,795	$281,683	.....	.....	$102,445	.....	1
.....	18,473	36,000	0	.....	.....	54,473	.....	.....	36,000	.....	2
43,346	65,453	60,000	0	$4,100	4,532	177,431	.....	.....	60,000	.....	3
6,782	18,448	363,073	94,574	.....	28,195	511,072	.....	.....	263,073	$100,000	4
15,709	6,183	219,539	120,839	.....	6,204	368,474	.....	.....	219,539	.....	5
280,215	226,316	2,225,419	119,433	240,461	641,142	3,732,986	.....	.....	1,979,058	246,361	6
54,000	4,000	390,000	0	0	40,000	488,000	2/5	$310,000	.....	80,000	7
24,433	22,237	179,458	102,780	0	44,724	373,633	1/5	123,971	55,487	.....	8
11,193	.....	100,552	0	.....	5,001	116,746	1/5	100,552	.....	.....	9
47,847	.....	233,800	0	.....	1,924	283,571	1/10	161,800	.....	72,000	10
17,700	6,810	187,057	78,726	20,400	140,584	451,277	.....	.....	95,000	92,057	11
3,000	13,604	117,957	82,298	64,047	1,000	281,906	.....	.....	103,363	14,594	12
13,407	2,064	215,036	0	.....	.....	230,507	.....	.....	115,036	100,000	13
43,756	1,200	144,291	0	5,991	8,365	203,603	.....	.....	114,291	30,000	14
1,800	.....	26,500	0	0	2,666	50,966	.....	.....	26,500	.....	15
112	.....	33,956	50,000	.....	5,027	89,095	.....	.....	22,593	11,363	16
2,500	101,276	175,860	98,290	.....	9,649	387,575	.....	.....	119,860	56,000	17
1,646	10,000	204,172	125	.....	932	216,875	.....	.....	164,172	40,000	18
239,591	32,450	2,333,263	160,085	36,450	273,568	3,075,409	1	2,083,263	.....	250,000	19
101,545	45,511	586,671	0	.....	20,855	754,582	28/100	586,671	.....	.....	20
63,461	29,499	663,058	140,483	.....	307,982	1,204,183	28/100	663,058	.....	([3])	21
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
52,765	.....	426,500	0	.....	13,831	493,096	.....	.....	389,500	37,000	23
118,312	22,904	1,199,916	0	.....	381,462	1,722,594	.....	.....	924,916	275,000	24
89,024	7,541	762,000	0	.....	62,295	920,860	.....	.....	649,500	112,500	25
58,122	24,877	698,316	128,814	.....	301,864	1,211,993	.....	.....	618,316	80,000	26
16,589	10,644	253,718	139,030	3,000	204,266	627,247	1/10	53,632	200,086	.....	27
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
57,252	9,915	149,202	101,702	.....	57,058	375,129	.....	.....	149,202	.....	29
7,000	6,543	275,658	110,658	.....	16,265	416,124	.....	.....	101,658	174,000	30
10,363	10,613	430,983	79,927	.....	119,229	651,115	.....	.....	364,500	66,483	31
409,000	312,000	100,000	22,000	550,000	460,000	1,853,000	.....	.....	100,000	.....	32
427,870	77,666	1,294,000	0	292,718	555,579	2,647,833	3/5	1,190,000	9,000	95,000	33
38,418	70,539	561,000	138,086	.....	196,717	1,004,760	1/5	560,000	1,000	([3])	34
7,934	.....	72,700	0	.....	4,324	84,958	.....	.....	72,700	.....	35
271,322	58,052	1,902,586	129,731	.....	442,012	2,803,703	23/100	369,214	1,408,122	125,250	36
16,650	14,387	195,494	114,276	.....	204,514	545,321	.....	.....	180,494	15,000	37
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38
26,774	42,000	45,688	0	3,000	.....	117,462	.....	.....	45,688	.....	39
10,869	35,000	262,407	97,866	.....	20,793	426,935	.....	.....	212,407	50,000	40
984	.....	38,500	0	.....	.....	39,484	.....	.....	38,500	.....	41
15,092	.....	290,000	0	.....	.....	305,092	.....	.....	220,000	70,000	42
92,670	57,007	1,188,007	118,576	.....	261,442	1,717,702	1	490,385	248,828	448,794	43
1,904	15,283	145,034	92,221	.....	19,833	274,275	4/5	129,379	15,655	.....	44
17,067	39,865	109,075	115,574	125	65,642	347,348	.....	.....	59,075	50,000	45
36,004	44,612	114,949	110,425	152,419	.....	458,409	.....	.....	114,949	.....	46
2,821	26,527	88,192	0	.....	4,729	122,269	.....	.....	68,192	20,000	47
970	22,255	22,000	0	.....	428	45,653	.....	.....	22,000	.....	48
1,222	.....	142,601	99,102	131	37,469	280,525	.....	.....	119,606	22,995	49
9,089	.....	149,658	.....	.....	.....	158,747	.....	.....	148,158	1,500	50
519,015	712,780	825,944	333,386	111,863	339,276	2,842,264	.....	.....	743,645	82,299	51
.....	.....	155,000	0	1,300	.....	156,300	.....	.....	130,000	25,000	52
49,014	12,391	228,812	0	8,057	27,225	325,427	.....	.....	165,000	63,812	53

[2] No report as to income.

[3] Included in receipt from mill tax.

TABLE 3.—*Property and income of State*

	Names of institutions.	Property.				
		Bound volumes in libraries.	Value of library, scientific apparatus, machinery, and furniture.	Value of grounds (including farm).	Value of buildings.	Endowment funds.
	1	2	3	4	5	6
57	North Carolina College of Agriculture and Engineering.	9,600	$339,683	$110,073	$643,534	.....
58	North Dakota Agricultural College	26,995	310,987	95,000	595,000	.....
59	University of North Dakota	62,000	293,887	110,420	507,810	$2,051,150
60	Ohio University	47,000	289,000	541,652	950,000	153,133
61	Ohio State University	184,268	1,719,157	2,013,404	3,044,782	1,035,678
62	Miami University (Ohio)	50,700	219,505	71,200	782,900	118,107
63	Oklahoma College for Women	4,500	35,000	16,374	260,611	.....
64	University of Oklahoma	30,286	271,116	101,889	705,560	3,670,000
65	Oklahoma Agricultural and Mechanical College.	27,049	343,816	60,000	538,516	.....
66	Oregon State Agriculture College	40,612	400,623	438,716	877,980	202,663
67	University of Oregon	84,724	231,428	319,000	530,609	55,000
68	Pennsylvania State College	70,300	930,701	148,180	1,962,688	500,000
69	University of Porto Rico	7,500	97,451	65,910	186,541	10,850
70	Rhode Island State College	22,600	146,600	14,855	324,450	.....
71	The Citadel, the Military College of South Corolina.	6,596	60,000	.....	450,000	.....
72	Clemson Agricultural College (S. C.)	18,650	429,979	170,702	913,450	154,439
73	University of South Carolina	58,000	173,670	945,984	350,350	.....
74	South Dakota State College of Agriculture and Mechanic Arts.	23,364	78,600	70,000	450,000	390,941
75	South Dakota State School of Mines	7,000	60,000	17,000	96,000	.....
76	University of South Dakota	35,000	210,000	50,000	500,000	.....
77	University of Tennessee	44,204	270,925	749,300	465,553	405,000
78	University of Texas[1]	129,878	704,076	147,500	1,703,615	2,000,000
79	Agricultural and Mechanical College of Texas.	20,000	535,121	149,121	1,762,394	209,000
80	College of Industrial Arts (Tex.)	12,000	167,460	93,500	740,023	.....
81	Agricultural College of Utah	31,773	188,924	23,700	648,700	.....
82	University of Utah	53,065	100,000	50,000	750,000	20,000
83	University of Vermont and State Agricultural College.	96,960	286,222	75,000	1,180,000	1,063,525
84	Virginia Polytechnic Institute	34,927	178,000	80,000	613,000	.....
85	University of Virginia	90,600	322,933	600,000	1,504,189	2,277,775
86	Virginia Military Institute	17,000	27,750	37,500	589,386	34,200
87	College of William and Mary (Va.)	17,500	75,000	50,000	260,000	151,327
88	State College of Washington	64,000	327,820	147,124	1,278,529	906,668
89	University of Washington	108,117	664,561	1,061,250	1,195,996	5,000,000
90	West Virginia University	64,826	300,000	300,000	800,000	116,000
91	University of Wisconsin	253,000	1,712,495	2,317,311	4,769,488	704,399
92	University of Wyoming	41,000	304,000	100,000	487,000	239,339

[1] No report as to income.

universities and State colleges—Continued.

Income from—							Analysis of State appropriations.				
Student fees, excluding board and room rent.	Productive funds.	The State.	United States Government.	Private benefactions.	All other sources.	Total working income.	Mill tax rate.	Receipts from mill tax.	Appropriation for current expenses.	For building and permanent improvements.	
7	8	9	10	11	12	13	14	15	16	17	
$17,120	$7,500	$183,707	$134,707	.....	$53,519	$396,553	.....	.....	$183,707	.....	57
9,960	73,181	161,938	106,659	.....	76,163	427,901	.....	.....	161,938	.....	58
21,127	63,514	190,137	0	.....	15,128	290,006	.....	.....	190,137	.....	59
21,450	7,657	264,937	0	.....	42,253	336,297	.....	.....	[2] 240,287	$24,650	60
155,380	61,019	1,667,533	128,149	$726	196,579	2,209,386	$\frac{1.07}{1000}$	.....	[2]1,440,452	227,081	61
23,764	9,150	235,225	0	165	373	268,677	$\frac{1.07}{1000}$	.....	[2] 213,850	21,350	62
200	.....	50,000	0	.....	.....	50,200	$\frac{1.7}{1000}$	.....	50,000	.....	63
26,372	123,084	816,260	2,385	.....	3,843	971,944	.....	.....	291,260	525,000	64
4,841	37,500	314,197	128,348	.....	42,866	527,752	.....	.....	314,197	.....	65
33,693	10,973	510,074	131,857	.....	47,552	734,149	$\frac{4}{10}$	361,474	148,600	.....	66
22,239	10,681	278,582	0	.....	.....	311,502	$\frac{3}{10}$	278,582	.....	.....	67
62,372	30,000	632,338	188,383	.....	153,259	1,066,352	.....	.....	559,301	73,037	68
1,273	1,865	50,142	50,000	329	2,485	106,094	.....	.....	50,000	142	69
4,822	2,500	40,000	90,582	.....	24,352	162,256	.....	.....	40,000	.....	70
.....	.....	69,619	0	.....	32,481	102,100	.....	.....	60,000	9,619	71
14,590	9,266	268,722	151,526	.....	7,560	451,664	(3)	268,722	.....	.....	72
12,435	.....	139,067	0	.....	8,114	159,616	.....	.....	45,520	93,547	73
12,704	40,285	469,1[illegible]	[illegible]6,445	.....	78,422	706,967	.....	.....	204,250	264,861	74
1,903	5,092	36,500	0	.....	.....	43,495	.....	.....	36,500	.....	75
16,922	14,657	319,500	0	.....	2,332	353,411	.....	.....	157,500	162,000	76
38,413	26,252	1,110,585	134,536	3,650	30,[illegible]9	1,344,096	.....	.....	110,585	1,000,000	77
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	78
2,314	10,450	.....	173,415	.....	1,231,901	1,418,080	.....	.....	.....	.....	79
33,856	.....	513,000	0	.....	5,238	552,094	.....	.....	163,000	350,000	80
9,554	.....	212,981	96,498	.....	46,848	365,881	(4)	.....	153,228	59,753	81
26,230	.....	264,727	0	.....	40,952	331,909	(5)	252,227	.....	12,500	82
71,457	35,890	67,280	100,063	.....	53,397	328,087	.....	.....	67,280	.....	83
32,460	20,659	179,230	124,725	.....	161,441	518,515	.....	.....	162,563	16,667	84
58,698	92,928	96,686	0	14,369	27,073	289,754	.....	.....	96,686	.....	85
36,592	3,063	52,500	0	.....	.....	92,155	.....	.....	50,000	2,500	86
3,790	8,899	56,250	0	.....	89	69,028	.....	.....	56,250	.....	87
26,263	54,517	444,684	107,393	.....	110,054	742,911	(6)	385,608	59,076	.....	88
170,430	41,477	662,247	0	.....	.....	874,154	(7)	587,674	5,556	69,017	89
33,332	6,462	506,857	112,191	.....	26,995	685,837	.....	.....	416,337	93,500	90
391,996	37,618	1,793,063	135,016	24,863	365,731	2,748,287	$\frac{3}{4}$	1,352,801	289,693	150,569	91
6,992	22,773	152,887	93,331	960	28,641	305,584	$\frac{1}{2}$	126,037	26,850	.....	92

[2] Includes receipts from mill tax.
[3] Fertilizer tax.
[4] 28.34 per cent of 28 per cent of the State levy of 2 mills.
[5] 64.43 per cent of 28 per cent of the State levy of 2 mills.
[6] A little less than one-third of 1 mill.
[7] A little less than one-half of 1 mill.

UNIVERSITY OF ILLINOIS-URBANA
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